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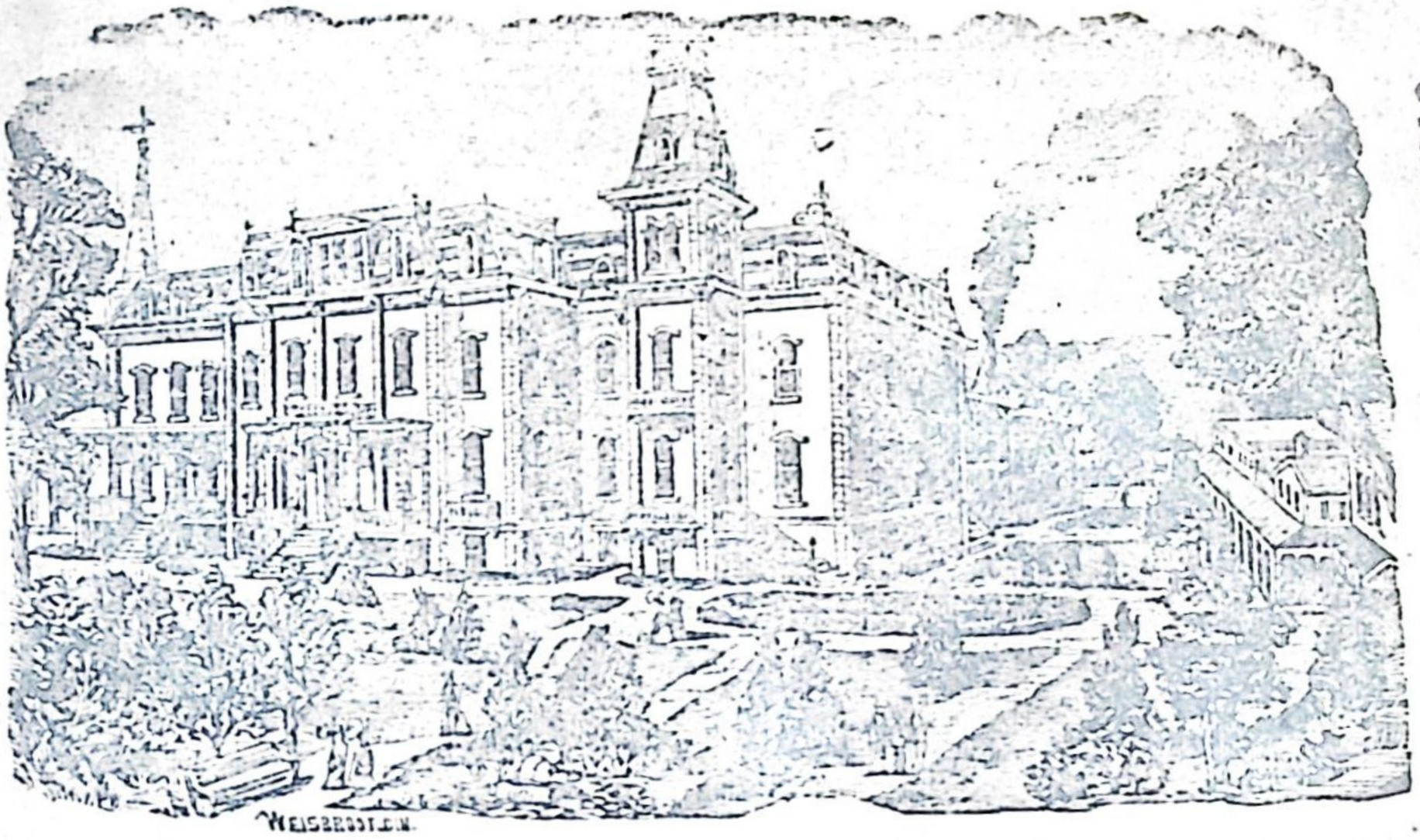

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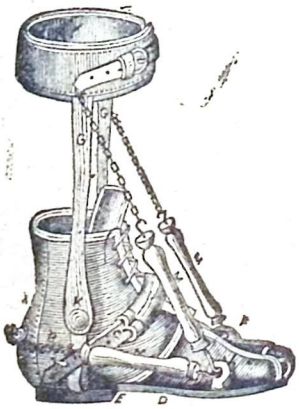

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ORIGINAL ARTICLES.

ON CATHETER FEVER.

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NEAR the close of 1883, Sir Andrew Clark briefly directed the attention of the Clinical Society of London to the group of fevers known to ensue upon instrumental interference with the urethra. He shortly afterwards brought this subject before the London Medical Society in a valuable address published in March, 1884. Its historiography was laboriously collated at his request by his assistant Dr. Delépinè, and is set forth succinctly in the article referred to, with a promise of future publication *in extenso*. This sketch with cases which Sir Andrew had seen, though as a medical man he had never conducted the treatment of one, forms the text of his remarks, and as it is the latest of its kind, I beg leave to introduce a short synopsis of it here.

Although the existence of a relationship between urethral instrumentation and certain modes of constitutional disturbance had been admitted since the beginning of this century, it was not until 1832 that Brodie, Velpeau, and perhaps Civiale, distinctly described these accidents, their initiatory conditions, complications and terminations, defined their varieties, demon-

strated their dependence upon surgical interference with the urethra, and endeavored to explain their nature. Velpeau's accurate description and natural classification have remained thus far the best expression of the pathology of the subject, and have formed the basis of views, more or less similar, promulgated by subsequent writers, not always with due acknowledgment.

Brodie emphatically mentions the dangers of catheterism (by which term is implied the passage of bougies, sounds or catheters) and describes as occasionally occurring in consequence of it, paroxysms of irregular fever like ague, leading sometimes to prolonged debility, sometimes to continued fever with rheumatic pains, and sometimes to mania. Death, he says, may follow, but cites no case of its actual occurrence.

Velpeau enters much more minutely into the nature and relations of the fevers thus mentioned, and contributes several new ideas to the further development of the subject. He alleges that in some persons, perfectly healthy, not exposed to the influence of malaria, even easy catheterism may develop a consecutive and continuous fever, and that this fever has five varieties. In the first, it consists of a single paroxysm, ending in malaise and debility with recovery in a few days. The second consists of recurring paroxysms of fever, issuing in continued fever, and is often fatal. The third consists of an inflammatory fever arising out of nephritis, phlebitis, or other local inflammation. The fourth consists of fever associated with purulent arthritis. The fifth consists of a rapid succession of violent paroxysms of fever, speedily ending in collapse and death. Velpeau clearly points out that in the second and fifth varieties he has never found present at the autopsies any adequate structural cause of death, and in these cases he is disposed to regard as the origin of the fever, the absorption of vitiated urinary constituents.

Civiale gives a full and admirable account of this catheter-fever, but though admitting that the fever is referable sometimes to the urethra, and sometimes to the bladder, and contending that the one differs essentially from the other, he almost angrily minimizes the effects of surgical interference, though in a later part of his work he changes his point of view, saying that the cause of the fever is vague and uncertain, and that in speaking of its nature we can only guess.

Phillips, in 1858, while mainly following Velpeau's classification, asserts that the simplest as well as the severest catheterism, with the largest or the smallest instrument, may originate the fever, that unless the affection of the urinary tract lie behind the bulb, the fever does not follow, and that the predisposition to it lies in the existence of certain diatheses and in chronic disorders of the general health.

In 1859, Marx adopts a classification of the varieties of catheter-fever similar to that given by Velpeau, recognizes uncomplicated cases issuing in death without any discernible structural lesion outside the bladder, quoting eight or nine that occurred in his own practice, asserts that the fever may occur in persons of perfect health, and that in them, as well as in others not healthy, it may follow upon any state of the urinary organs requiring the passage of a catheter. He emphatically declares the fever to be uremic, and ascribes its origin to insufficiency of the kidneys arising out of functional or structural disease. In this work, perhaps for the first time, says Sir Andrew, the causal relation of catheterism to the catheter-fever is clearly and comprehensively set forth, and an ingenious if not accurate theory of the genesis of the fever propounded.

The publication of Sir Henry Thompson's work on the Urinary Organs in 1867, greatly advanced the practical and to some extent the theoretical aspects of this subject. Thompson speaks of the perils of catheterism, gives instructions for averting them, notes the occurrence in a few exceptional cases of a low irritative fever, and quotes Sir Benjamin Brodie to show that in a few weeks it might terminate in death. Thompson further remarks, and I quote from his lecture published in 1868, "Notwithstanding all your care, now and then you will find a case in which during the treatment the tongue grows slowly more red, dry and contracted, the powers of life gradually fail; the senses become impaired and the patient sinks. You will always find by autopsy (and in this observation, as Sir Andrew Clark points out, Thompson differs from almost every one of his predecessors in this line of inquiry) old standing pyelitis with dilatation and injury to the renal structure, and you will know that in no circumstances could the patient have long survived."

In 1867 Sir Joseph Fayrer gave an admirable account of three varieties of catheter fever, declaring that the predisposition to them lay in the malarious state and its consequences, or else in incipient or advanced disease of the kidneys or other part of the urinary tract; that it begins in reflex disorders of the nervous system, that it is not *toxemic*, and that catheterism alone without injury or sensible irritation is, in these circumstances, sufficient to originate the febrile process.

In 1868 Sir James Paget reviewed the subject, and stated that catheterism will be especially dangerous and may induce death when the constitution is chronically disordered, the urine of low density and abundant, and when something has occurred to cause temporary depression of the health. He inclines to the belief that renal degeneration is the cause of the fever, but admits that as far as his own experience goes the cause is apparently inadequate.

Writing in 1871, Banks, of Liverpool, admits that renal disease predisposes to such attacks, denies that they are due to suppression of urine, and ascribes them to shocks of greater or less severity.

Malherbe, in 1873, in his work on "Fever of Diseases of the Urinary Passages," illustrates the subject by temperature charts, and avers that the fever may arise without local irritation, describes it as uremic, alleges that the predisposition to it is renal, while admitting in some cases no structural lesions are to be found, and holds to the hypothesis that the fever is based upon renal imperfection.

In 1877, M. Marcus Beck, contributed two very careful, thoughtful and accurate papers to the elucidation of this subject. He holds that the predisposition to the most rapidly fatal of these fevers lies in chronic disorders of the health, in renal imperfections and in age, and that the exciting cause is probably mechanical irritation or injury of the urethra, whose immediate effects are reflected upon the kidneys, so as to bring about their structural or functional insufficiency. He strongly supports the view that the fever is uremic.

This concludes the condensed review of M. Delépinè's historiographical sketch as contained in Sir Andrew Clark's paper.

The subject since then has excited considerable attention. In a lecture published in the *Lancet* eight months afterwards, Sir Henry Thompson speaks forcibly of these dangers of catheterism, especially where noted lesions of the urinary organs exist as follows: "I have one more caution to utter in regard to habitual catheterism or those elderly patients whose circumstances have been referred to, which is of great importance when the bladder has been for a long period of time overdistended,—the patient's condition having been overlooked for months or even for years, in consequence perhaps of catheterism having been forbidden; it is, at this advanced period of the case, a serious matter to resort to it. Rashly undertaken, great as is the relief at first experienced, symptoms of fever, "urinary fever" as it is, I think, properly termed, often appear in a few days; cystitis occurs, catheterism is required more frequently, the urine becomes highly purulent, the powers of life feeble, the tongue dry, nourishment is refused, and the patient sinks usually in about three or four weeks from the first employment of the instrument. On autopsy, almost invariably the ureters will be found dilated on one or both sides, one of the kidneys diminished in bulk and wasted, the other enlarged, inflamed, and perhaps the seat of numerous deposits of pus. It is said that such fatal histories following catheterism for long continued distention of the bladder, have occurred in individuals whose urinary organs when examined after death, are found free from organic disease. Far be it from me to state that such a sequence of events is impossible; but it must be one of great rarity. No example has occurred within the range of my experience." Here we find Thompson reaffirming in 1885 the same views he originally promulgated in 1867.

Sir Andrew Clark continues the discussion as follows: "It will be seen that catheterism is occasionally followed by a fever, which has received the various names of urethral fever, urethro-vesical fever, urinary fever, uremic fever, catheter fever, etc.; that in some cases this fever is dependent upon or associated with purulent arthritis, ordinary pyemia, what is known in England as surgical kidney or interstitial nephritis, and that in a small, but still noticeable percentage of cases, no adequate structural

cause of death has been found." He then offers the following propositions with regard to that form of catheter fever alone, neglecting the others, which is associated with habitual catheterism for retention. "First. That after death in such cases, a not infrequent result, there is often no adequate structural lesion observable. Secondly. That in view of the possibility of so grave a termination of the case, the patient and his friends should be duly forewarned. Thirdly. That this matter should be specially dealt with in current and systematic surgical literature, where, he says, it has no adequate place, and thus be made accessible to the whole body of the profession. Fourthly. That this fever is neither distinctly uremic nor pyemic; that it probably begins in the nervous system, reacts first upon the general metabolism of the body, and in the second instance, upon the secretory organs, beginning with the kidney. That the effect upon the kidney may consist either in structural alterations, invisible by the aid of our finest instruments of research, or, much more probably, in alterations of the constitution of the blood, that dynamic condition of its constituents in the renal vessels essential to the elaborative action of the renal secretory cells; and lastly that the concurrence of these conditions may be and often is enforced by septic resorption into the blood." Almost every writer of distinction of these times, says Sir Andrew, adheres to the uremic origin and nature of catheter fever, or of the thing known under that and other names, and he finds himself thus left alone and very imperfectly armed to oppose such a view. He grounds his opposition to this exclusively uremic etiology upon the fact that the phenomena of catheter fever in their assemblage and progress are different from those of the ordinarily recognized uremia. Its duration is longer than that of acute uremia, whose proper symptoms are absent, and shorter than that of chronic uremia, wanting its neuralgias, recurring headaches, defects of vision, transient paralyses, itchings of the skin, vomiting, dyspnea, palpitations, nervousness and low temperature. The urine of this variety of catheter fever, moreover, is always loaded with organisms, and, though it contains a little albumen, shows no casts, and is capable of amendment.

Banks describes these effects of simple catheterism, and clas-

sifies them under three varieties. First; rigor with malaise, recovering speedily. Secondly; rigor with malaise and prostration, followed in a few days by fever and death. Thirdly; shock, producing death sometimes within a single day. (Clark).

Van Buren refers the reader to the papers of Girard, Malherbe and Banks, admitting that the uncertainty which surrounds "that condition known as urethral fever has not yet been entirely cleared up. He classifies these affections under four distinct types. 1st; a sharp chill, coming on usually within twenty-four hours, attended by increased temperature, followed by fever, with perhaps delirium and sweating. This may be all, or in other cases there may be febrile excitement for a number of days, with malaise, inappetence, loss of strength and a slow recovery, or there may be renewed paroxysms of chill with fever, with irregularly marked intermissions. This, he says, is the most common form. 2nd; there may be only a few slight rigors without much fever or any sweating, the patient afterwards being as well as before. 3rd; there may be a violent chill coming on rapidly, but of variable duration, attended by intense prostration, alarm, and excitement at first, violent vomiting, profuse diarrhea, coldness and lividity of the surface, almost total suppression of urine, all the symptoms of uremia, and a rapidly fatal issue. 4th; there may be a slight chill and fever, followed by the (usually rapid) development of septicemic symptoms and death, or more slowly, by true pyemia and death, the autopsy revealing abscesses in the prostate, kidney, liver, lungs, suppuration in the joints, fluid in the pleuræ, pericardium, etc.

Van Buren states that the first two forms are by far the most common, and fortunately so, as they are the least disastrous. That all these disorders should depend upon the simple absorption of urine through an abraded surface, is, he says, in the highest degree improbable. Other forces are at work, such as shock, reflex suspension of the renal function when the kidneys are already diseased, and putridity of the urine. The mystery, he says, is that these fevers do not constantly occur when the conditions are the same. The majority of patients escape, whether the urine is ammoniacal or not, whether the wound or violence is great or small. The same patient may have a chill

one day, and escape it after an exactly similar operation the next day, or vice versa. The gentle passage of a small soft bougie may cause it, while divulsion or urethrotomy some days after may not; or after divulsion without the occurrence of a rigor, the passage of a steel sound may induce one. The extent of the injury done, he says, is no index of the amount of fever that will follow. The gentle passage of a smooth sound may cause speedy death, while extensive wounds and laceration of the canal are often absolutely innocuous, and that too, where the urine is strongly alkaline (decomposed).

Van Buren directs attention anew to the fact that patients upon whom no instrument has ever been passed, have well marked exacerbations of chill and fever (dumb ague as they call it) in connection with urethral and bladder disease, and these patients cease to have chills after the stricture has been dilated with instruments. He also endorses Phillips' assertion in the main, by stating that the danger increases in proportion to the depth of the lesion under treatment from the meatus. A wound, he says, does not seem to be at all necessary, cases being recorded where death has followed rapidly upon the introduction of a smooth instrument, autopsy failing to reveal any lesion of the canal. Here shock and reflex action arresting kidney secretion would seem to be the immediate cause of death. The chill may come on before the instrument has been withdrawn from the urethra, but usually not until some hours after, and generally, not until after urine has flowed through the canal. Here a case is cited of divulsion at the bulbo-membranous junction in a man who had been a hard drinker. A rigor occurred during and after the operation, rapidly followed by low fever, mild delirium, and death on the ninth day. Only the single rigor occurred. Autopsy showed death by pyemia, several abscesses in the prostate, and a small one in the left lung, with pleuritic and pericardial effusion. There was suppuration at two points where the hypodermic needle had penetrated the arm. The patient was evidently ripe for suppurative inflammation at any point injured.

In rapidly fatal cases, after instrumentation, says Van Buren, old and often advanced kidney disease, or, at least, intense hyperemia of the kidney, is found on autopsy, but in some cases

these organs have been pronounced normal. Even in these latter there has been usually suppression of urine, but simple suppression of urine does not kill in one or two days, and to solve the problem, in these cases, we are forced to fall back upon the effects of shock.

Systematic writers upon surgery, as Sir Andrew Clark observes, have not sufficiently invited the attention of the profession at large to these very common and highly dangerous complications of the maneuvres and operations upon the urinary organs, on which they dwell at so much length. Neither Holmes, in his individual work, nor Mr. Bryant, speaks of them at all. Sir William Ferguson, however, writing in 1852, mentions violent shiverings, spasms, retention, etc., as of common occurrence, where dilatation of a stricture is pushed too rapidly. But this is all. Mr. Erichsen is more explicit. The introduction, says he, of instruments into the urethra, gives rise occasionally to syncope and rigors. In certain persons there is a great tendency to shivering and faintness, particularly as the instrument approaches the neck of the bladder. These effects may immediately disappear, or may continue for many hours, or may not appear until after the lapse of a day, the rigors being very severe and intermitting, so as to resemble an ague-fit. The temperature may rise during the rigor to 104° or 106°. Profuse sweating with great exhaustion succeeds. This occurrence is always very alarming, and if the patient be old, of broken constitution, or the subject of kidney disease, a fatal result may rapidly ensue. In one case death ensued at the end of nine hours from a continuance of the syncope; in another, in two days from suppression of urine, and this even, although no material difficulty was experienced in passing the instrument. The cause of these rigors and sweatings is exceedingly obscure. They occur in the most courageous of men, and very rarely follow the use of the catheter in women. Here he cites a case where three most intense rigors with sweatings followed dilatation of the urethra with a two-bladed dilator after twenty hours, in the person of a strong, healthy, young, married lady, who had a stricture of the orifice of the urethra. In men these accidents occur after dilatation of any part of the urethra, but

mostly so after deep dilatation, possibly because the deeper portions of the canal are more commonly strictured. A case of death, however, was known to him, after a rigor following incision and dilatation of the orifice of the urethra. He doubts whether these rigors occur unless there have been some lesion, abrasion or rupture of the mucous membrane of the urethra. They certainly follow the use of the metallic instruments more frequently than that of the softer kinds.

From what precedes it will be seen that the following statements, with regard to these accidents, have received the sanction of some or all of the authorities cited.

1. That they may occur in perfectly healthy subjects. (Velpeau, Marx, Van Buren, Sir Andrew Clark.)

2. That they may occur and death ensue without visible lesion upon autopsy. (Velpeau, Marx, Malherbe, Van Buren, Clark, Sir Joseph Fayrer.)

3. That they may occur equally after the use of large or small instruments. (Phillips, Van Buren.)

4. That their occurrence is not related to the degree of surgical interference with the urinary passages. (Van Buren.)

5. That the fever does not follow unless the affection lies behind the bulb. (Phillips and, with some modification, Van Buren.)

6. That the predisposition to the gravest and lethal forms of these fevers consists in reflex or structural renal insufficiency. (Velpeau, Van Buren, Sir Andrew Clark, in part.)

8. That these fevers originate in irritation of the urethral nerves, and are primarily nervous phenomena. (Banks.)

9. That in the most marked continued and fatal cases, the condition is due partly to uremia, and partly to resorption of decomposing elements from the urine. (Sir Andrew Clark.)

The pathology of fever has been very distinctly advanced since certain of these expressions were put forth. I cannot help believing that under the term, catheter-fever, are included morbid states of distinctly different, and even of mixed character. Let us glance for a moment at the conditions under which these accidents occur. The urethra is most abundantly supplied with nerves, and is compared by Thompson to the ocular conjunc-

tiva in sensitiveness. Its prostatic portion is supplied with nerves of exaggerated sensibility. The sympathetic relationship of this region to other organs through the nervous system, and particularly with the great cerebro-spinal centres is as intimate as that of the uterine mucous surface to certain parts of the economy. The prostate is indeed the strict homologue of the uterus, and irritations of its mucous lining, and probably of its parenchyma, exercise very potent degrees of inhibitory influence, both normally and pathologically. The phenomena of death in prolonged shock, occasionally consequent upon distention of the uterine cavity by air, instruments, or injected fluids, especially where endometritis exists, are to be ranked, I think, as truly analogous to those where death occurs soon after catheterization. The "shivering and faintness," spoken of by Erichsen and Van Buren, as attendant upon passing the catheter, especially noticeable while the instrument traverses the prostatic region of the urethra, are familiar to all of us. Other cases are on record of death within twenty-four hours, or thereabouts, after catheterism. I myself know of one where the catheter was passed by the patient himself. As in the case cited by Van Buren, a rigor may occur even before the instrument is withdrawn, or it may come on later, with rapid rise of temperature, clouding of the intelligence, delirium, and partial or total suppression of urine. Here the condition is one that should be attributed to a combination of shock with acute renal congestion and uremic toxemia, if it lasts more than twenty-four hours, but the rapidly fatal cases, where the temperature does not rise, the features sink and the patient is in evident collapse, must, I believe, be ranked as instances of an overwhelming of the powers of life by the exaggeration of those steps of the febrile process which are naturally initiatory. The economy fails to react, the reactive stage of fever is not reached or developed, and the individual succumbs by an inhibition of the great functions of life, as he does in fatal syncope, in a congestive chill, in Asiatic cholera without alvine discharges, and not directly by any kind of intoxication, septicemic or uremic, but by the disastrous results of an over potent inhibition. And just as we rightly class cholera among the pyrexiæ, so may we include such cases, per-

haps, in the group of catheter fever, even though no obvious fever be ever apparent.

With regard to the proposition that phenomena of this kind may occur in perfectly healthy subjects, as affirmed by Velpeau, Marx, Van Buren and Sir Andrew Clark, I may simply say that I greatly fear there has been some misconception as to the existence of this alleged perfect health in the cases referred to. I have certainly never seen or heard of a case where the simple passage of the catheter, for scarcely any other instrument could be called for, as occasionally practised upon a truly healthy urethra, has been followed by any such disastrous results. We pass a catheter down a urethra known to be healthy or most probably so, in certain conditions during fevers, after injuries of the spinal cord, r during inflammatory or congestive states of the spinal medulla, and its envelopes, when the bladder is paralyzed, for some other paralytic affections of the bladder, for obstructions of the urethra by tumors or abscesses, and possibly in other analogous conditions, but as far as I have seen, or know, without any subsequent rigor, fever or prolonged shock. Where the phenomena in question have been observed, I think the chances are that there has been some unnoticed or latent inflammatory state of the urethra, by which its normal sensitiveness has been greatly exaggerated, in connection, possibly, with an exciting but unrecognized malarious state, such as Sir Joseph Fayrer directs attention to. The entire mass of cases where these accidents have occurred, evidently presuppose some affection of the urinary channels. The bougie or catheter had been passed for the dilatation of a stricture, in the treatment of a gleet, or to relieve retention of urine. I may only advert to the existence of chronic inflammation behind all contractions of the urethra, to the presence of inflammatory granulations at various points in chronic gleets, to the inflammatory features and complications of chronic prostatitis and deep urethritis, to the subacute inflammation of the entire urinary passages, which supervenes at times in gouty constitutions, as a consequence of abnormally acid urine, and to the irritating effects of oxalate of calcium in the urine. A similar pronounced subacute or even acute inflammation of the bladder and urethra, and at times

eventually of the ureters and pelves of the kidneys, attends upon decomposition of the urine, being provoked by the carbonate of ammonium present in the putrescent urine. So, also, in pyelitis, whether calculous or due to other causes, when pus is poured into the urine it excites chronic inflammation before long in all the parts below the kidney, especially in the urethra. Residual urine, also, whether retained in the urethra by a stricture, or in the bladder by some obstacle to the complete evacuation of the urine, is sure to beget inflammation of the tracts behind the point of obstruction. Certain causes are often active in predisposing to congestion and subsequent inflammation of the urinary tract. Where the prostate is hypertrophied, the return of blood from the bladder by way of the prostatic plexus is greatly impeded by the pressure of the overgrown prostate, and the distension of the bladder by retained urine, in conjunction with its weight, which is excessive in some instances. A congestion of the vesical and prostatic mucous membrane is then maintained which excites an exaggerated secretion of mucus, and this, in turn, by retention, becomes decomposed, and provokes alkaline fermentation of the urine. A very high degree of susceptibility to inflammation and later actual inflammation very often are thus established before any instrument whatsoever is passed, ready to explode in rigors, or in those prolonged nervous phenomena of an inhibitory character, which have been mentioned. The influence of hepatic obstructions, and of the malarious state, often undiscoverable at first, except in their effects, must be admitted as very important, I believe, in the production of the most sudden and violent varieties of this catheter fever. Perhaps their influence may be due to pelvic venous congestion as a result of impairment of the hepatic circulation, and also to a *general* venosity of the circulating fluid, with that impaired venous and lymphatic circulation which seems to belong to the so-called malarious state. All these considerations may co-exist, when, sooner or later, instrumentation becomes necessary, the primary appeal for treatment usually coinciding with some exacerbation of the local conditions due to taking cold, to an intercurrent malady, or to a temporary increase of urinary acidity.

I cannot avoid suspecting that the existence of some of these

conditions has either been overlooked, or not adequately appreciated by those who have cited cases of catheter fever as occurring in so called healthy subjects. While the general health may not have been obviously affected, a demand itself for local treatment presupposes the existence of some chronic inflammatory condition of the urinary passages.

In this connection, I beg leave to say, that it is surely in accordance with surgical principles that the supervention of the febrile and other phenomena under consideration should be definitely, if not absolutely, related to the modes and degrees of instrumental intervention, and that such a relationship does exist my own experience compels me to admit. It is, I believe, a matter of great moment, with regard to the occurrence of these accidents, which although uncommon after simple catheterism, or the discreet use of sounds, occur in three-fourths of the cases where a traumatism is practised, how we use instruments and what kinds of them we employ. It is, I am sure, very significant whether we use a flexible or a solid catheter, a small or a large one, one with a flexible bulbous tip or a rigid extremity, with a smooth or a rough surface; whether or not we contuse the urethra or scrape it, as with a fragment of calculus grasped in a lithotrite; whether we reach the bladder easily or with difficulty; whether we allow a sound to remain long in a stricture, or use a large one, or exercise much force in passing it, or the reverse, or whether we operate quickly or slowly. Still further, as, e. g., in the treatment of stricture, it matters much, I must believe, whether we attempt to remove the obstruction by continuous dilatation, tying in a bougie, by gentle intermittent dilatation with polished steel sounds of appropriate sizes, or by divulsion, or internal or external urethrotomy. The gentler the methods followed, as far as I have seen, the more secure may we feel against these alarming and dangerous accidents, though never wholly secure. On the other hand, when we are obliged to make a wound or to prolong the contact of instruments with the urinary passages, or to introduce them very frequently, every day or so, or many times a day, we must prepare ourselves to meet these accidents. Rigors may suddenly explode and be repeated, or subacute febrile conditions may arise, simple, or complicated

with much graver troubles such as abscess of the prostate, of the base of the bladder or of the kidney, or true pyemia may set in with the affection of distant organs, or septicema, or uremia or all of these combined.

I may also point out that a certain number of the cases reported under the group of catheter fever, by some of the older authors, seem to have no proper place there, but as their autopsy demonstrated, were undoubtedly cases of pyemia, whose symptomatology and pathology are much better understood now than when Velpeau wrote. Even if initiated in a traumatism followed by abscess, as we see in cases of prostatic abscess occurring during catheterism, and although rigors with sweating, or the continued form of urinary fever co-exist, pyemia must be regarded as a distinct and superadded affection, and in no sense properly a catheter fever. As it may have originated independently, so it should be regarded as a sequel or complication of the urinary fever, when this exists. Although pyemia is characterized by irregular rigors with rise of temperature and sweating, its rigors differ in all their surroundings from those of transient urethral irritation, or of malarial fever. Pyemia generally occurs after wounds of the urinary passages, as a consequence of urinary infiltration. It may likewise occur, we must admit, although I cannot say that I have ever seen such a case, by the extension of urethral or vesical inflammation to surrounding parts, especially to the veins and lymphatics (Velpeau). Its common cause, however, after operation, is infiltration of urine into the areolar tissue and the establishment of a septic purulent cellulitis. Even when not putrescent, urine, so extravasated and retained, even in very small quantity, will rapidly engender pus, and the state of the constitution and local reactivity of the parts concerned will determine whether the pus centre shall become segregated from the economy by a sthenic exudative process, or prove a focus of general infection.

In general, we should avoid making wounds of the urinary passages when we can, and when obliged to do so should select the operation which is soonest performed, requires the least amount of wounding, which does not favor concealed hemorrhage, and the distention of internal parts it produces, and which

allows access from the exterior, and free drainage for blood and urine through the wound itself.

I may mention here a case of catheter fever with uremic symptoms, apparently due to dilatation of a stricture at the bulb with steel sounds, which occurred to me a few years ago. The patient had suffered for some years from a chronic cysto-prostatitis with a marked contraction (20 French) at the bulbo-membranous junction. Under treatment, including the sound, he improved in all respects so much as to leave the city, though against my advice, on a visit to some friends. During this visit he took some very long walks in the country and otherwise exhausted himself, and was obliged to return for further treatment. The sounds were resumed and introduced once or twice only, but within a few days the patient began to fail, became listless and drowsy; the tongue became dry and darkly coated, and there was muttering delirium. He never had a rigor or convulsion, and the urine remained comparatively clear until death occurred after an illness of about two weeks. The left kidney was examined and found enlarged, with a thickened cortex, and generally congested and softened. This case was one, I think, of latent nephritis with uremic symptoms, and I believe that the fatal issue was dependent upon the vesical and urethral irritation augmented by indiscretions in the country and a resultant malarious state. It would seem to be a typical case of fatal catheter-fever of uremic variety. The kidneys may have been affected previously, but there were no distinct evidences of this in the condition of the urine or otherwise.

The mild uremia of these somewhat prolonged cases is due, it seems to me, not merely to inhibition of the functions of the kidney through nervous channels, but to structural impairments of a congestive or quasi-inflammatory character. Whether such a latent nephritis originates, in cases like this, in a congestion of the renal cortex propagated upwards from the bladder, or results from the general febrile cachexy, as so many parenchymatous inflammations do, I will not venture to decide. This variety of renal mischief is, at any rate, a chief factor in the well-known form of catheter fever which affects old men who are entering upon

what we call catheter life for prostatic obstruction. Here all the morbific elements concur. The condition of the urinary organs renders them highly prone to take on inflammatory action under almost trivial exciting causes, as I have said. One main cause of irritation is inevitable, for the catheter must of necessity be frequently introduced sooner or later, while the obstruction is seated in the most sensitive part of the canal, and that, moreover, most closely linked by sympathy to the great organs of life. So close is the obstruction, for our first call is often to relieve retention, that the very smallest soft rubber catheter through which the turbid urine will flow, or washing of the bladder can be effected, requires a certain degree of coaxing if not force for its introduction, especially after it has been passed a few times. And however gently passed, and however asepticized, by frequent passage, some irritation of the bulbo-membranous junction and of the prostatic urethra will, after a certain time, manifest itself. When this occurs cystitis is kindled, or having preexisted becomes exalted, and fever is superadded. Sometimes there is a rigor, but not usually, the fever being of the continuous kind. The urine becomes abundant, very pale and of low density, full of organisms, is faintly alkaline, fetid in smell and highly putrescible. No pain is complained of except dull headache; the patient is drowsy and sleeps a great deal, loses appetite, and becomes forgetful and apathetic. The tongue is coated and inclines to dryness. These symptoms may become more and more pronounced until death closes the scene, or they may last three or four weeks and slowly disappear as the patient gradually recovers, and they may be complicated by abscess in or around the prostate in either event.

The irritating agency in such cases is, I believe, mainly the unremitted catheterism, for I have found puncturing the bladder by the rectum with a discontinuance of the catheterism to be followed by speedy amendment. But the concurrent decomposition of the urine must also be regarded as a prime source of irritation, and the absorption of such tainted urine through surfaces abraded by the catheter, must be considered as the direct cause of the septicemic elements of the fever. A degree of uremia also plainly concurs, which increases to a lethal extent

in fatal cases, and this would first be due, I imagine, to the establishment of latent nephritis, as it is not a primary condition. Such a nephritis may be looked upon as a pathological accompaniment of the subacute septicemia, specially, perhaps, determined to the kidneys by the sympathetic relations of the bladder and particularly of the deep urethra, to those organs.

ADDISON'S DISEASE ASSOCIATED WITH GASTRIC ULCER AND PERFORATION OF THE STOMACH.—POST-MORTEM.

BY N. M. BASKETT, M. D., MOBERLY, MO.

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CRITICAL research, analysis and investigation have characterized the members of our profession for the last fifty years. Long study and constant labor have served to abolish many previously existing theories, and to solve many apparently profound mysteries. Still, much of medicine is dark and mysterious. Many of the fields of our profession are still seen as through a glass, darkly. Many interesting subjects have scarcely been elucidated; and the normal functions, as well as the pathological conditions of several organs of the human system, after patient and protracted investigation, still elude the piercing eye and the analytical brain, and retain their position on the confines of knowledge as veritable *terræ incognitæ*.

No organs have more puzzled the anatomist, the physiologist and the pathologist than those which are known as the ductless glands. Situated in the body in intimate anatomical association with important organs, whose functions have been well defined, it is difficult to believe that they perform an unimportant part in the work of the human economy. And this fact is the more apparent when we consider that the pathological conditions of these bodies almost universally exert a disastrous influence upon the vitality of the individual affected.

The suprarenal capsules of the kidneys are not exceptions to the principles here enunciated. Belonging to the ductless glands, their functions have not been defined. In close and intimate relation with the kidney, they possess an anatomical structure almost anomalous, or entirely so, in the human body. In size apparently unimportant, clinical facts manifest that the destruction of the organs is invariably attended with disastrous results. And still the character of the labor which they perform in health is almost entirely unknown, and the pathology of their disease, while frequently inspected and analyzed, is still doubtful.

In 1849 Addison announced the disease which bears his name. But few facts of importance have been discovered since then concerning it. A little more thorough knowledge regarding the changes occurring in the organs during the progress of the disease, and a slightly better classification of symptoms, are all the advancement of which we can boast since Addison's time.

Addison's description was a graphic one. The bronzing of the skin, the languor, weakness and inability to perform manual labor, the small compressible and irregular pulse, the pearly whites of the eyes, occasional nausea with vomiting, and the tendency to death from asthenia, were all delineated by a master hand.

It appears the capsules are intimately concerned in the excretion and removal from the system of some material whose retention is noxious to vitality. Whether they are anatomically associated with the sympathetic or glandular system, one fact is apparent, that a healthy performance of their labor is absolutely essential to health. The pigmentary deposit, if it can so be called, which ensues upon disease, manifests the presence of material which should be eliminated. It is possible that the retention of this substance in the blood so reacts upon the nervous system as to produce the asthenia which is such a marked symptom of the disease. Or it is possible that the capsules themselves are a storehouse of energy for the sympathetic system, and that the development of a pathological condition in them lowers the vitality of the sympathetic system, and prevents the performance of the vital functions at a proper stand-

ard. Vulpian states the blood of the suprarenal capsules gave special reactions to various tests. Addison believed the organs were connected in function with the sympathetic ganglia. Brown-Sequard showed that, by crushing the organs in the hare death could be produced; and Koelliker has advanced the theory that the functions of the organs are dual, that of a glandular organ and a part of the nervous system.

The nature of the disease is also a mooted question. Wilks considers it a special disease, probably inflammatory in its nature, always followed by certain results and attended with characteristic symptoms. Bristowe thinks it a cheesy degeneration of a tubercular nature, while Hartshorne regards it as a constitutional cachexia frequently associated with scrofula, particularly scrofulous caries of the vertebræ.

The complications and associations with other diseases are given by Wilks as vascularity or apparent hypertrophy of the intestinal canal. "Brunner's glands in the duodenum and the solitary glands in the ileum and colon," says he, "have been found more than usually prominent in morbus Addisonii." "Occasionally tubercle has been met with in the lungs, and this has confirmed the opinion in the minds of some that the disease is scrofula; but it must be stated that the deposit in the lungs has generally been of the same nature as that in the capsules, the true nature of which has been the subject of discussion."

In a few cases caries of the spine has been found associated with the disease adjacent to the capsules. "In these cases," says Wilks, "the disease of the spine must be regarded as the older."

It will thus be seen that Wilks regards the condition as a disease separate and apart from all others.

A gentleman residing at Centralia, Mo., recently called upon me requesting my opinion concerning the nature of an affection which had manifested itself several months previously. There was persistent languor, weakness and disability to perform manual labor. The pulse was small and compressible, the whites of the eyes glistening and pearly, the appetite much impaired. The skin was bronzed, not as some writers say like the mullato, but more like the Indian. This condition had developed rapidly. There was marked tenderness over the region of the su-

prarenal bodies. There was occasional vomiting without much nausea. The asthenia was marked, though he presented no excessive evidences of anemia or wasting. To use his own words, "People say I look strong enough to work, and I suppose I do, but I feel utterly prostrated almost all the time." Palpation and pressure over region of liver, spleen and stomach, revealed no indication of any disease of those organs. The tongue was clean and healthy. Urinalysis revealed nothing abnormal in quality or quantity of urine. I diagnosed Addison's disease, placed him on Greenhow's prescription of chloroform, glycerine and iron, and sent him home without encouragement. I have not since heard from him.

During the month of January last, I was approached by a gentleman who desired to be examined for insurance in one of our assessment societies. This man was a tinner between 40 and 45 years of age, and had been constantly engaged in the labors of his trade for several years past. A few questions elicited the fact that two of his family had probably died from consumption, although he was not positive. I told him it would be necessary for him to inform himself more thoroughly about his family history before I would consent to examine him. He left, promising to do so, but did not present himself for examination again.

In a few weeks I heard he was dangerously ill from some supposed malignant disease of the stomach. I learned too that the physician in attendance had him sometime during September last, and had expressed the opinion at that time that there was probably some cancerous trouble in the stomach. The applicant had continued to labor at his trade up to the time within three weeks of his death. There was no history of hemorrhage or much vomiting, but a constant pain not of a very acute nature, in the gastric region. The disease was not sufficient to confine him to bed until about the first of March.

The condition progressed from bad to worse, until Friday, the 19th of March, when the applicant died. I learned then that subsequent to coming to my office, he had applied to the examining physician of another order for insurance, had been examined, and accepted as a good risk. During his examination, he had stated that he had learned that his relatives did not die

of consumption, and that there was no derangement of his digestive organs. He was admitted to the order during the month of February upon paying the initiatory fee and an advanced assessment.

A few days after admission, he sent for the physician who had diagnosed malignant disease of the stomach, stating he was worse and placing himself under treatment. He grew steadily worse until death, which occurred about five weeks after admission to the order.

He was insured for $3000 dollars, and his early death naturally caused considerable feeling amongst the members of the organization. The attendant physician during his last sickness, diagnosed "malignant disease of stomach and liver, and possibly kidneys." It was regarded by the members of the order as remarkably singular that the examining physician could overlook such a grave condition of disease. The examining physician stated it was impossible for the patient to have had any such disease at the time of examination, and if he had, the questions propounded had not been answered truthfully. The applicant was buried on the 21st.

Gossip and comment still continuing, the examining physician determined to have the body exhumed and an autopsy held. This was done March 25. The attending physician and the examiner for the order, were present. Drs. Irwin, Hickerson, and myself were requested to make the autopsy. Drs. Irwin and Hickerson did the cutting. I took note of the conditions found.

The cadaver was in excellent state of preservation. Corpse sallow, dark hue, wasted, anemic, cachectic, cheeks hollow. *Post-mortem* changes externally were venous stasis, well marked over abdomen, especially in right and left iliac regions; venous stasis also plain on dorsal surface of hands; but little fatty tissue discovered on abdominal section. Peritoneum pale, bloodless and healthy.

The costal cartilages were cut through, the sterum elevated and bent back exposing pleura, lungs and pericardial sac. A few ounces of dark, bloody serum were seen in posterior portion of thoracic cavity. Pleura healthy, no adhesions, bands, or inflam-

matory thickening. Lungs *in situ* a pale, mottled grey, perfectly healthy, with slight *post-mortem* congestion from settling of blood in posterior portion of lung. No tubercle or cavities; perfect vesicular crepitation on pressure. Pericardium pale pink, and healthy, but little fluid in pericardial sac. Ventricles of heart collapsed, and but little blood in auricles. Walls of heart thin, but atrophied only from general wasting of system. Heart cavities healthy. Great omentum pale and healthy, with very little fatty tissue. Spleen dark, slightly congested with venous blood; very slightly enlarged and somewhat friable. Liver normal in size, pale and healthy, with slight *post-mortem* venous congestion along the free border. Gall bladder full of healthy bile, and in a normal condition. Lesser omentum and intestines natural.

The stomach was found slightly congested and inflamed almost throughout entire extent. The walls were remarkably thin and wasted, the gastric tubules seemingly almost entirely destroyed. A suppurating chronic ulcer was found on the posterior surface of the cardiac extremity of the viscus, extending entirely through the posterior wall of the organ, about an inch and a half immediately below the point of entrance of esophagus. The esophagus was inflamed from point of entrance, about seven inches above. Pus covered the mucous membrane of the stomach throughout, giving the tissues a greenish yellow hue. About two tablespoonfuls flowed from the ulcer when the organ was removed.

The right and left supra-renal capsules were found in the condition characterized by Wilks as the third stage of the disease, and which I here append as more graphic than any words of mine could be.

"At a still later period, the whole of the originally formed material may be changed into a yellow substance, and now it is that it presents the ordinary appearance of a mass of yellow tubercle. During this time the whole organ shrinks and becomes reduced to about its original dimensions." "In many cases, a still further change ensues, and the solid material becomes converted into a creamy or pus-like fluid, so that when the capsule is cut through, this may escape just as in opening an abscess."

Both capsules were in this last stage of the disease, the right more markedly so than the left. As my notes say, "the capsules were found in a condition of pustular degeneration, yellow and semi-liquid in appearance, and entirely degenerated."

Examination of right and left kidneys showed them to be healthy. There was no examination of the bladder, as no disease of that organ was suspected. The condition found will probably result in an effort on the part of the order to prevent the payment of the insurance. The examining physician refuses to recommend the payment of the insurance, and considerable feeling exists amongst members of the organization concerning it.

A careful research of the literature of the subject fails to reveal any recorded cases of gastric ulcer associated with Addison's disease, or vice versa. Aitkin, Bristowe, Wilks, Pepper and Watson, are all silent concerning such a combination of diseases. In Hartshorne, Dr. Austin Flint is quoted as saying, "that degenerative disease of the gastric and intestinal tubules is the cause of anemia so prominent in this affection. It is unquestionable that gastric disease and ulcer had existed for some months in this case, and it is probable that the ulcer was the immediate cause of death. But no inflammation had been produced in the omentum or surrounding organs by the perforation of the ulcers.

Hartshorne says the "disease is fatal always at last. Average duration, about fifteen months," Wilks that some cases of the disease are as brief as six months, and an average of about one and half years will cover the duration of the disease. The mode of death is asthenic, the patient becoming weaker and weaker, diarrhea sometimes ensuing, sometimes convulsions or coma, sometimes the patient remains in the lowest state of vitality for weeks, and then suddenly dies. Life lingers like a flickering flame and then suddenly expires.

The larger number of cases of Addison's disease occurs in men; the larger number of gastric ulcer in women. Remedies recommended for the former condition are few and not considered to possess much virtue. The favorite prescription of Dr. Greenham was chloroform, glycerine and iron.

Some facts of an interesting nature may be gleaned from this autopsy. First, the association of Addison's disease with gastric ulcer. Second, the possibility of the cachectic hue when associated with derangement of the stomach, being mistaken for cancer. Third, the fact that the asthenia and prostration are not always sufficient to prevent the regular discharge of manual labor. Fourth, the possibility of intercurrent disease obscuring the symptoms connected with Addison's disease. Fifth the possibility of overlooking a very grave lesion or combination of diseases when insuring an applicant; and lastly, the tendency of individuals to conceal grave and mortal conditions when pecuniary considerations are involved, when preparing to "shuffle off this mortal coil."

EXCISION OF THE OS CALCIS.

BY FRANK J. LUTZ, M. D., *Surgeon to the Alexian Brothers' Hospital, Lecturer on Clinical Surgery in the St. Louis Medical College.*

[*Read before the St. Louis Medical Society*, Feb. 27, 1886.]

OF the bones forming the arch of the foot, the calcaneum is most frequently the site of disease, and, in marked contrast with its fellows, inflammatory conditions, when they have their origin in the bone itself, do not, as a rule, extend to the neighboring osseous structures.

The frequency of ostitis of the os calcis is, no doubt, attributable to its anatomical position and structure. It is the largest and most exposed of the tarsal bones, and forms the posterior pillar, and is the main point of support of the arch of the foot, and as such is called upon to sustain the entire weight of the body, whereby its comparatively delicate cancellated structure is frequently subjected to contusion. In addition, it is the point of insertion of the powerful tendon of the calf of the leg—the tendo Achillis—the muscles of which during the performance of

their various and manifold functions, exercise a great and continuous strain upon the bone. Necrosis and caries, following ostitis, are the usual indications for excision. Circumscribed inflammatory foci may be removed by free gouging, provided the individual be not tubercular, for if the inflammation of the calcaneum be but "the local expression of the constitutional condition," to use a well worn phrase, then excision holds out the only hope of success. Nor will anything short of total excision result in cure, when the bone is involved in its entirety. Gunshot wounds, compound comminuted fractures and more rarely malignant neoplasms may require removal of the bone *in toto*.

In dealing with a case of destructive ostitis of the calcaneum, the surgeon should bear two points in mind. First, that he is called upon to remove an important, I might say essential, part of the foot; and second, that in doing this, he should endeavor to preserve and restore as far as possible the usefulness of the foot.

This brings us to the consideration of the methods of removing the bone. We have the choice of two. The one concerns itself with the removal of the bone, regardless of its regeneration; the other considers the restoration of the bone *the* thing to be aimed at, and by it an effort is made to remove the bone subperiosteally, or, in other words, to preserve as much of the periosteum as possible, in order that from it a new bone may be formed.

Whilst it is doubtful whether, even in those cases in which the sub-periosteal method is employed, the high standard of Ollier will be reached, who considers only those results as good in which the regeneration of the bone is so perfect that the contour of the foot is almost natural, and in which there are no functional disturbances, yet it requires but to enumerate the advantages of the sub-periosteal method over the other to be convinced of its superiority in all cases where it is applicable.

Simple excision of the calcaneum is followed, when we succeed best, by shortening of the leg, disappearance of the pedal arch; a depression takes the place of the tuber calcanei; the antero-posterior movements of the foot, which occur in the tarso-

calcaneal articulation, are very limited, if not impossible. Dependent upon the new point of insertion of the tendo Achillis, will be the extent to which the foot can be extended; the higher up the insertion the more limited the extension.

It goes without saying, that these disadvantages exist only to a limited degree when the bone is reproduced wholly or in part.

In the subperiosteal method the tendo Achillis is not cut off; by preserving its union with the periosteum of the os calcis, its function continues when the bone is reproduced. Then, too, its preservation assists in the formation of the tuber calcanei, when otherwise the periosteum would be drawn forward. The talo-calcaneal articulation is not destroyed, the antero-posterior movements of the foot are restored.

According to Ollier the most favorable ages for the reproduction of the bone are between thirteen and twenty. After the thirtieth year regeneration is less liable to occur, and it requires a certain amount of irritation, such as is occasioned by the movements of the foot, the pressure of the padded shoe, etc., to excite bone-reproduction.

Langenbeck obtained the most brilliant results in children from two to nine years.

The time necessary for the production of the new bone varies from three to eight months, and sometimes several years. Vitiated constitutional conditions interfere with bone regeneration.

The deductions as to mortality and results, drawn by Ashhurst (International Encyclopedia, vol. II., p. 53;) from the statistics heretofore published, will hardly guide the surgeon in the choice of method, for the operations were made, so far as the record shows, before surgery was familiar with the more perfected methods of wound treatment; and before the subperiosteal method is pronounced the more dangerous and the one yielding less favorable results; other and more accurate figures must be placed before us.

These scattering remarks were suggested by the following case, of which I have the pleasure of exhibiting the specimen and a photograph showing the result. No hopes were entertained that the bone would be reproduced on account of the age of the patient and the extensive destruction of the periosteum, hence

the sub-periosteal removal of the carious bone was not attempted, but simple excision was performed. The patient recovered with a useful foot.

On the 19th of July, 1884, H. B., a German laborer, aged 37 years came under my care. He is a slender built individual, six feet in height, weighing about 130 pounds, with no inherited or acquired constitutional taint, and claims to have always enjoyed good health until four months ago, when pain and a swelling in his heel, which afterwards opened, interfered with his working. After a short time the entire right foot and the leg up to its middle became involved in the tumefaction. On examination it is found that the whole right foot and lower half of the leg are greatly swollen and pit on pressure. The antero-posterior movements, whilst possible to a limited extent, give great pain. Posteriorly and on both sides of the heel are openings which permit the probe to be introduced to the necrosed bone.

The foot having been ordered elevated for a week, the tumefaction subsided to such an extent that it could be clearly made out, that the os calcis was the only bone involved, and excision was advised, which was assented to.

In the removal of the bone the operation suggested and practised by Mr. Erichsen was employed. The incision was commenced an inch behind the tuberosity of the metatarsal bone of the little toe, to avoid the tendon of the long peroneus muscle and carried back around the heel and along the inner side of the foot, terminating opposite about an inch short of the point of beginning. The horse shoe shaped flap was then raised from the os calcis and turned forward. Next a vertical incision was made over the tendo Achillis, terminating in the horizontal one, and the integument and subcutaneous tissues reflected to either side and the connection of the tendo Achillis with the bone severed. The interosseous ligament which unites the bone to the astragalus was then divided by entering the knife posteriorly and passing it along the upper surface of the calcaneum. Pressing the bone downwards, its lateral attachments were severed, and finally, the only remaining bond of union, the calcaneo-cuboid ligaments were cut.

Interrupted sutures, drainage tubes, iodoform and absorbent cotton, and the foot and leg placed in an immobilizing splint completed the dressing. The patient made a good recovery. The

leg, measured from the head of the fibula to the sole of the foot, is three-fourths of an inch shorter than its fellow; the foot is flat, the arch being robbed of its posterior pillar, and a soft, doughy mass has replaced the calcaneum. He walks comfortably with a padded shoe.

By examining the specimen and comparing it with the normal bone, it will be seen that the entire bone was inflamed; its inferior third is destroyed. The bone itself is flattened vertically, brought about no doubt, by the patient's walking on it, after it was inflamed and softened.

Both the patient's legs are also the site of leucoderma. The transverse cicatrix on the posterior suface of the right leg is the remnant of an old wound.

INOCULATION AGAINST PHTHISIS—Prof. Verneuil believes that by some plan of inoculation analogous to that employed by Pasteur against rabies, it will be found practicable to prevent the development of phthisis after the disease has already been implanted in the economy. He has started a fund to be expended in the experimental study of tuberculosis.

DISINFECTANTS—DEODORANTS—ANTISEPTICS.—A disinfectant is an agent capable of destroying the infective power of infectious material. Agents which merely mask unpleasant odors are deodorants, and their purpose is not the destruction of disease germs. Antiseptics are agents having the power to arrest the process of putrefaction.—*Com. on Dis. of A. P. H. A.*

SYRIAN PROTESTANT COLLEGE.—This institution is located at Beirut, Syria, was incorporated by the Legislature of New York State in 1863, and is under the general control of a Board of Trustees residing in that State. It is the aim to give a thorough literary, scientific, medical and pharmaceutical education. The instruction is given in the English language. The course of study in the medical department extends over four years and is very thorough.

CASES FROM PRACTICE.

SURGICAL CASES TREATED AT THE POLYCLINIC AND HOSPITAL OF THE ST. LOUIS POST-GRADUATE SCHOOL OF MEDICINE.

REPORTED BY L. T. RIESMEYER, M. D., Assistant to the Chair of Surgery.

Since the opening of the St. Louis Polyclinic until the first of last April, two hundred and twenty-four patients were treated at Prof. Tuholske's surgical clinic; of these seventy-eight, nearly one-third, were afflicted with diseases of the genito-urinary organs. I shall endeavor to describe some of the rarer and more interesting cases observed and treated during that period.

RESECTION OF THE ELBOW-JOINT FOR SYNOVITIS CHRONICA GRANULOSA.

Mr. K., æt. 29, joiner, married, born in Germany, of healthy family, was always healthy until five years ago, when he noticed pain in the right elbow-joint. Later the joint began to swell, and the pain increased, unfitting the patient for his occupation. He had never received any injury. About six months ago he came to the polyclinic. The joint was found to be very much swelled, edematous and reddened, the surface-temperature elevated; at some points fluctuation existed, muscles atrophied. There was pain on pressure on both sides of the olecranon process, and over the external condyle. Voluntary motion not possible; passive motion only to a very limited degree and causing pain. Although the case had been sent to the clinic for resection, it was decided by Prof. Tuholske to try a more lenient treatment first, considering that the average results obtained by this operation are not very encouraging. Various methods of treatment were resorted to. For a couple of weeks inunction with mercurial ointment was used, combined with slight pressure by a moderately tight bandage, at the same time putting the arm at rest by a splint. After this the joint was wrapped up in

absorbent cotton, moistened with a three per cent solution of carbolic acid, the arm immobilized and the dressings removed every two days. At intervals of three or four weeks the thermo-cautery was applied all around the joint, and once every week passive motion was used. While under this treatment the elbow seemed to improve, pain and swelling becoming less and mobility increasing, yet it was plain that ultimate recovery could not ensue. As a last resort before resection, Hueter's method of injecting a two per cent solution of carbolic acid into the joint was given a trial. However, this author used the injections only in the early stages of the disease, and recommends an early resection on account of the danger of a general tubercular infection. While the inflammatory symptoms, which at this time had again increased, were checked to some extent by these injections, it was not thought safe to temporize any longer, and the resection was made by Langenbeck's method.

The amount of destruction observed, when the joint was laid open, had not been anticipated. Not only were the synovial membrane, cartilages and ends of humerus and ulna destroyed by fungous growths, but the caries, due to the advancing granulations, had excavated the end of the humerus longitudinally for about two inches. The fungous masses and the diseased portions of bone were removed; the humerus was resected above the condyles, and the remaining cavity, the result of the caries curetted. After controlling the hemorrhage, the wound was irrigated with a one pro mille solution of corrosive sublimate, and drainage-tubes introduced at right angles to each other, for which purpose an additional cut had to be made a little to the inside of the internal condyle. The wound was sewed and dressed antiseptically, using iodoform and absorbent cotton, moistened with a one pro mille solution of corrosive sublimate. The arm was then padded with absorbent and sheath-cotton, and supported above and below the joint by leather-splints, moulded to the arm. Additional support was secured by paste-board splints having an opening at the site of the joint. Besides these a metal suspension-rod, bent upward at its angle, to leave room for the joint, and starched gauze bandages were used to secure immobility. The arm was thus immobilized at an obtuse angle, and suspended in this position for about four weeks. The dressings were removed every three to five days, according to circumstances. Immediately after the operation, as well as later, the patient could move all his fingers freely, showing that the ulnar nerve had not been injured.

The wound all along the cut healed by first intention. The first few days after the operation there was a rise of temperature, varying between one and one-half and two degrees Fahr.; later, the temperature became normal. When seen last, which was about April 5th, the wound was still suppurating. The after-treatment is now attended to by the family physician, and we have not seen the patient since the latter date.

DEVELOPMENT OF EPITHELIAL CANCER FROM LUPUS EXULCERANS.

Mr. B., born in Texas, æt. 24, single, strong and healthy looking, of healthy parentage, had, when presented at the surgical clinic, a few spots of a tubercular eruption, red and infiltrated, on both cheeks, presenting all the characteristics of lupus vulgaris nodosus; while the left wing of the nose was tumefied, fissured, cracked and ulcerating. On microscopic examination, the tumor, as had been suspected, turned out to be an epithelioma. The skin immediately surrounding the ulceration, showed the same nodular appearance as the eruption on the cheeks. The observation that lupus exulcerans may pass into epithelial cancer is not new and has been made by Hebra, Volkmann, Lewin and others. The operation was intended to be made in two stages. First, removal of all diseased tissues; second, after the wound had healed, flap-operation to cover the defect. The first part of the operation was done immediately after the diagnosis was certain. After plugging the posterior nares, the left outer wall of the nose up to the nasal process of the superior maxillary bone and the turbinated bones were removed. Towards the right, the cut passed a little outside of the median line; the septum remained. After removal of all suspicious tissue with the knife, curette and thermocautery, the wound was dressed with iodoform and absorbent cotton, moistened in a three per cent solution of carbolic acid. In the after treatment, iodoform ointment was principally used as a dressing; lactic acid being applied freely to places where a return of the disease was suspected. The healing process advanced slowly; it taking five or six weeks before cicatrization was complete. Up to February, four months after the operation, there has been no sign of a return of the disease. Since that time, we have not heard from the patient, who intended to return to the clinic, and have the looks of his nose improved by a plastic operation. It must be added that no accessible lymphatic glands were enlarged.

DEVELOPMENT OF AN EPITHELIAL CANCER FROM LUPUS ERYTHEMATOSUS.

Mrs. H. æt. 65, born in England, has an ulcerating tumor of the size of a hen's egg, with an uneven, fissured surface, in the right mamma, below and a little outside of the nipple. Surrounding the the tumor, the skin from the third to the sixth rib, and from axillary line to sternum, on the right side, is erythematous, not infiltrated, excepting the immediate surroundings of the tumor, and has an abrupt border. Part of the surface is covered with white closely adherent scales. At some places, a few tubercles the size of a pin's head, are noticed. A similar eruption, but much less extensive, is noticed on the left side of the thorax and another on the back, over the seventh and eighth dorsal vertebræ. Axillary glands are not enlarged.

The patient first noticed redness of the skin on the right side of chest about thirty years ago; it began as a small tubercle, gradually enlarging from centre to periphery. The ulceration began six months ago. The above mentioned tumor formed since that time. Diagnosis: Epithelial cancer.

The growth with a good deal of the surrounding tissues was removed, so that a wound surface, the size of a hand, remained. The wound was left open and dressed with iodoform and carbolized cotton. The patient is doing well, never had fever, no sign of any return of the cancer.

SARCOMA OF THE THORACIC WALL.

Miss B., æt. 19, born in Germany, noticed, a year ago, a small tumor on the right side over the sixth rib, gradually growing larger and becoming very painful. The tumor had been excised twice, but returned. On the 26th of December, 1885, patient came to the Polyclinic, when a smooth tumor, the size of a hen's egg, of a bluish-red color, not ulcerating, was noticed a little outside of the axillary line, connected with the sixth rib. Skin immovable over the tumor. Diagnosis: Osteosarcoma. The tumor was excised. The tissues at some places removed down to the pleura costalis and the bone curetted. The wound was left open, dressed with styptic cotton, and later with iodoform. A day after the operation, the patient complained of incontinence of urine and a constriction around the abdomen, and was unable to move her legs; sensibility in lower extremities diminished. The paraplegia may

be explained either by a myelitis or the formation of metastases. Patient was removed from the wards of the clinic and died a few days later. The most interesting feature about this case is the extremely rare occurrence of sarcoma of the chest wall.

OSTEO-CHONDROMA OF THE FOURTH METATARSAL BONE.

Mr. G., cigar maker, æt. 29, noticed two years ago a small lump, size of a bean, on the plantar surface of the fourth toe of the left foot. The same increased and decreased in size alternately, until lately, when it grew more rapidly and became very painful. When presented to the clinic the tumor had the size of a hickory nut, and a shining blue skin which was not movable over the tumor. It was removed with the knife and curette and dressed antiseptically. It consisted of a cartilaginous substance, with small excavations containing a glairy semi-liquid substance. At some places were hard, bony deposits. On microscopic examination it was found to be an osteochondroma with myxomatous degeneration.

Two weeks after the removal of the tumor the wound had cicatrized, and the patient had no more pain.

EPISPADIAS PENIS.

Mr. M., æt. 19, has a cleft penis up to within an inch of symphysis pubis, the cleft opening at the inferior surface. The corpora cavernosa are, as usual in this malformation, short and ununited; the penis is, as far as the split extends, broad and flat. The large triangular redundant flap of foreskin, at the base of the glans, which is one of the characteristics of epispadias penis, is wanting in this case; the patient being a Hebrew it has been removed. In Thirsch's plastic operation this piece of foreskin serves to cover part of the defect, and persons with this malformation should not be circumcised. As a first step in the operation the glans penis was to be united, and for this purpose the external two-thirds of the cleft were denuded and brought together by cat-gut sutures. During the healing process the urine was emptied with a catheter through the split behind the glans. Union throughout by first intention was the result. Although the operation of simply bringing together the denuded surfaces behind the glans, has never been successful; this method was given a trial, failing entirely. For the third time it was intended first to make an opening into the bladder through the perineum by which the urine could escape, and

then try to unite the surfaces; taking the precaution of making two lateral longitudinal incisions to relieve the tension. But the shaking and trembling of the patient, who of course, was chloroformed, prevented the accomplishment of the first step, the establishment of a perineal vesical fistula. The rest of the operation was completed as projected, but no union took place. The patient will again be operated by Thirsch's method of securing flaps on each side of the margins of the cleft and, if a urethral fistula shall be established first, with an infinitely better prospect of success.

EPISPADIAS IN A FEMALE.

Miss H., æt. 22, came to the clinic to be treated for incontinence of urine, from which she had been suffering from childhood. An opening three-quarters of an inch in diameter was found in front of the vagina, leading directly into the bladder; the margins of the opening were reddened and inflamed; vagina and uterus normal; clitoris and mons Veneris divided by the aperture: no cleft in the symphysis pubis. The surroundings of the vulva and inner sides of the thighs were reddened, emitting a urinous odor. This case was lost sight of and could, therefore, not be operated upon.

Epispadias in the female is a very rare occurrence; C. Schroeder, of Berlin, mentions in his work on gynecology two cases, on which he operated successfully. The question regarding the manner of development of this malformation, is not yet settled. According to Schroeder the lesser degrees are probably formed by the allantois not rupturing at the proper time, and bulging forward at the normal site of the urethra, between the two halves of the vulva; thereby preventing the formation of the urethra as well as the closure of the front part of the vulva.

ARTHRITIS SYPHILITICA.

Mr. C., æt. 21, porter, has always been healthy until three years ago, when he had a sore on the penis several weeks after having had intercourse. He then took medicine, which produced salivation. Never had any eruption on the skin nor sore throat. On examination the inguinal, cubital and post-cervical glands were found to be enlarged; also the distal end of the left radius, the crests of the tibiæ and the fifth metacarpal bone of the right hand were enlarged, the latter throughout its whole extent. The left elbow-joint and both knee-joints were swelled and painful on pressure and motion.

Passive as well as active motion of the left elbow much impaired. Patient limped and complained of nocturnal pain in the affected joints and bones. The treatment consisted in large doses of iodide of potassium, forty to sixty grains three times a day. After having been a week under this treatment, the patient walked perfectly straight, the affected joints were no longer swelled nor painful, and their mobility entirely restored; the bony enlargements had much decreased. Interesting in this case is the epiphyseal enlargement of the radius, syphilitic enlargements of the epiphyses being very rare. There was no sign of rachitis. Another interesting feature is the arthritis, on account of the extreme rarity of syphilitic joint-affections. Rheumatism was excluded by the history of the case. Zeissl, of Vienna, says in his work on syphilis, that, while at his clinic a thousand cases of syphilis are treated every year, this period sometimes passes without one case of syphilitic joint disease being among them.

HYGROMA BURSÆ CARPI.

Mrs. K., æt. 30, has had a painless, fluctuating swelling in the palm of her right hand, and another larger one, above the wrist-joint. The swelling had been treated unsuccessfully for a year by counter-irritation, rest and pressure. When examined at the clinic, a fluctuating tumor, size of a hen's egg, was noticed above the annular ligament, communicating with a flatter swelling in the palm of the hand, corresponding in extent to the bursa carpi. By applying pressure to one of the swellings, the other would bulge out. A distinct crepitation, due to corpora oryzoidea, small white bodies, consisting of coagulated fibrine, which have, as is well known, received this appellation from their frequent similarity to grains of rice. It was due to these rice-bodies that aspiration of the bursa was unsuccessful. A trocar was used with some success, and a thick, synovial fluid, containing a number of fibrinous bodies, removed. The cannula, however, did not seem large enough to let all the bodies pass, so that part of the contents of the bursa remained, and either a large trocar will have to be used, or the bursa must be inclined under anticeptic precautions, which has been done successfully by a number of surgeons.

ULCUS SERPIGINOSUM SYPHILITICUM.

Mr. K., æt. 30, married, acquired syphilis twenty years ago, the symptoms having been kept down by anti-syphilitic treatment until

a year and a half ago, when an ulceration appeared over his right hip, healing again under treatment. Some months ago ulceration again occurred in the same region and spread rapidly. When the case was seen at the clinic the whole lower portion of the back, from the tenth rib downwards, presented several large, crescentic or kidney-shaped, unhealthy looking ulcers, with elevated, undermined, livid margins, and covered here and there by grayish-white membranous deposits. The treatment consisted of large doses of iodide of potassium and application of the thermo-cautery to the unhealthy granulations, the membranous deposits, and especially to the undermined margins; then dressing with iodoform ointment. While after two weeks' treatment a decided improvement had taken placer the patient left the clinic and the case was lost sight of.

CLINICAL THERMOMETERS.—The lastest device in the manufacture of clinical thermometers is in the form of a small watch or locket with a hand which indicates the temperature. Its action depends upon the expansion or contraction of a metallic tube filled with a highly sensitive fluid. It is said to be very delicate, accurate, and much less liable to accident than the ordinary glass tube instruments in common use.

PRIZE ESSAY SUBJECT.—Préciser par une Série d'Observations s'il existe un Traitement Abortif de la Syphilis Confirmée. (To determine by a series of observations if there exists an abortive treatment of confirmed syphilis) is the extraordinary subject chosen by the Paris Academy of Medicine for a prize essay this year, as reported by the *Lancet*.

SCARLET WRAPPERS are now required by the laws of Georgia, Florida, Kentucky and Tennessee to be used upon bottles or packages containing morphine. The Kentucky law requires that the word "poison" and the "skull and cross-bones" must appear upon the label in addition to the word "morphine" in white letters.

KNIGHTHOOD DECLINED.—M. Savory, the President of the Royal College of Surgeons, has declined the title tendered him by the British premier.

EDITORIAL.

THE MALARIAL GERM.

Dr. Geo. M. Sternberg, in a paper published in the *New York Medical Record*, May 1 to 8, gives a summary of the most recent observations with regard to the etiology of malarial diseases. It will be remembered that the result of his investigations carried on at New Orleans under the direction of the National Board of Health, led him to doubt the truth of the conclusions of Klebs and Tommasi-Crudeli who regarded the bacillus malariæ as the active agent in the causation of malarial disease.

At the time when he prepared his volume "Malaria and Malarial Diseases," published as one of the volumes of Wood's Library of Standard Medical Authors for 1884, he did not feel prepared to place any greater confidence in the observations of Laveran and Richard.

Laveran's discovery has since been confirmed by the Italian observers, Marchiafava and Celli, who have demonstrated their results to Dr. Sternberg in a recent visit to Rome.

It is claimed that in the red blood corpuscles of persons suffering from malarial disease are to be observed by proper preparation hyaline masses containing one or several pigment granules, these last being the result of a change in the hemoglobine of the red corpuscles, which are destroyed during the febrile attack. The same hyaline masses have also been demonstrated without any pigment granules "showing that while the pigment may be secondary and a result of their presence, they are not dependent upon the presence of pigment."

Dr. Sternberg is disposed now to accept the view that these hya-

line bodies are parasites which invade and destroy the red blood corpuscles in an attack of malarial fever.

Dr. Sternberg has described in his former writings on malaria and its cause, four forms of parasite which are found in the blood of patients with malarial disease.

The main interest, however, is centered in this hyaline mass, which he designates as body No. 2. These elements are those most frequently encountered in the blood of malarial patients. They are spherical, vary in size from one micro-millimetre to ten or eleven micro-millimetres in diameter, and seem to be made up of a very transparent hyaline mass enclosing rounded granules of a black or deep red pigment which vary in number, and which may or may not be disposed with some regularity in the form of a crown.

Sometimes these pigment granules seem to be violently agitated as if particles of solids in a liquid in ebullition.

In the bodies No. 2, of small volume, the pigment granules are immobile, while in those of average and large size, they may almost always be seen to move.

These spherical bodies No. 2, are sometimes free in the serum, sometimes attached to the red blood corpuscles. Those of small size are often grouped, four or five or more together. One or several may be attached to a red blood corpuscle. Gradually, in some cases, the corpuscles become more and more pale until it can no longer be distinguished except by its contour; its color has disappeared and its transparency is the same as that of the parasite, which augments in volume in proportion as the corpuscle disappears.

While this body No. 2 is described as spherical, its form is subject to material variation under the influence or movements of ameboid character. Sometimes the body may be seen to undergo a process of segmentation, and again three or four small masses may be seen to unite into one larger one.

Besides these bodies, there are sometimes distinguished filaments in active movement, and which impart to the neighboring blood cor-

puscles very rapid and varied movements. These "mobile filaments," Dr. Laveran regards as the adult state of the malarial microbe.

Laveran at first named the parasite which he had discovered, the oscillaria malariæ. In his recent work, he has abandoned this name and says that he does this the more willingly, for the reason that the oscillariæ are today classed among vegetables, while the malarial parasite seems to him to belong to the animal kingdom. Dr. Sternberg thinks it evident that this organism does not belong to the bacteria, but rather to the protista, which, according to Haeckel's classification, includes a large number of the lowest forms of life, which are neither distinctly animal nor vegetable, but intermediate between the two.

Dr. Sternberg believes that the etiological relation of this blood parasite to malarial disease is rendered strongly probable, not only by the constant result of microscopic examination, but by some inoculation experiments recently performed by Marchiafava and Celli.

These observers have also found that the parasites rapidly disappear from the blood of patients suffering from malarial disease, upon the administration of quinine, and when a solution of quinine is added to blood drawn from the veins of such a patient, the mobile filaments soon cease their characteristic movements, and the parasites assume the "cadaveric form"; and the observations so far made with regard to the action of these micro-organisms corresponding closely with the results of clinical study of malarial disease.

A postscript to Dr. Sternberg's paper, states that he was able March 24, to verify in a specimen of blood taken from a patient suffering from intermittent fever, in this country, the presence of the same micro-organisms which he had seen in Rome and which had been demonstrated to him by Marchiafava and Celli.

THE JOURNAL OF NERVOUS AND MENTAL DISEASES now appear monthly.

A COLD IN THE HEAD.

Dr. David Lee regards the affection which is commonly known as "a cold in the head" as a neurosis having to do specially with the vaso-motor system. He recently presented his views on this subject to the Harveian Society, in a paper entitled, "The Neurotic Treatment of Catarrh."

After discussing with some detail the etiology and pathology of the affection, he describes, the mode of treatment which he has found uniformly successful in his own person, and with others when he was able to superintend the administration of the remedies.

The indications for treatment, according to his view, are to soothe the reflex disturbance of the central nervous system, to quiet the local congestion and hyperesthesia of the nasal mucous membrane, and to arrest the flux, if this has commenced.

He describes the method which he has adopted when he "takes a cold." He takes a full dose, forty to sixty grains, of bromide of potassium, which he repeats once or twice at intervals of six hours as necessary. He applies with a camel's hair pencil a four per cent solution of cocaine hydrochlorate to the nasal mucous membrane, especially to that covering the inferior turbinated bones. Tincture of belladonna in doses of fifteen minims in a little water every hour or two until there is some dryness of the throat, he uses to control the flux, if that has already become established.

THE AMERICAN MEDICAL ASSOCIATION.

The meeting of the American Medical Association, held in our city last month, has been pronounced by some of our confrères the most successful meeting in the history of the Association. The attendance was large, the Committee on Registration reporting not far from twelve hundred members on the roll, and the character of the deliberations both in the general sessions and the sections was satisfactory and creditable to the Association. In most of the

sections there were so many papers, and generally of such merit, that there was less time than would have been profitably employed for discussion. It will be a matter of necessity in order to secure the most profitable employment of the time at the disposal of the association to rigidly enforce the by-laws requiring members who intend to present papers to the sections to submit them to the chairman of the appropriate section thirty days prior to the meeting, in order that a selection may be made for reading to the section. This will facilitate the preparation of the programme and secure that the time of the members shall not be consumed in listening to papers of relatively little importance.

One advantage that the Committee of Arrangements were able to secure for the Association here was that in the Exposition Building there were plenty of rooms for the meeting of all the sections and the various committees without the necessity of going to other buildings at all. Everything was under one roof, a convenience which has never been afforded anywhere else, we are informed.

The Committee of Arrangements were able to make provision for the convenience and comfort and entertainment of the delegates from different parts of the country, such that we were assured by a delegate from New York that at no other city had the entertainment been so lavish and profuse in a public way as at this meeting. This testimony was the more gratifying, inasmuch as our experience has taught us that New Yorkers are apt to look rather depreciatingly upon whatever is done outside of the metropolis.

Much credit, and the thanks of the profession, are due to Mr. J. W. Lambert, of the Citizens' Committee, for efficient work in arranging for the public entertainments which were provided, and which were in all respects an eminent success.

The apprehensions which were in the minds of many, that a stormy time would occur when the committee should present their report with regard to the organization of the International Medical Congress, were happily disappointed. The clouds which threat-

ened a disastrous tempest were all quietly dissipated. The hopes which we expressed in our editorial of last month with regard to the spirit to be manifested by delegates in attendance were realized; and the Association has successfully passed through a crisis in its existence concerning which its friends had serious fears. The Committee of Arrangements, the Citizens' Committee and the local profession, have our sincere congratulations upon the success of the St. Louis meeting.

MODIFICATION OF FEHLING'S TEST FOR SUGAR IN URINE.—F. CRESSWELL asserts that a solution of copper sulphate in an alkaline solution of water and glycerine, instead of the solution of tartrate of sodium and potassium, makes a test solution which is permanent, not liable to decomposition, as the ordinary Fehling's test solution. Moreover uric acid will scarcely affect it, an additional advantage.

He prepares the solution as follows: Take about 35 grammes of copper sulphate, and dissolve it in 200 cc. of glycerine, and 100 cc. of water. Then add 80 grammes of sodium hydrate dissolved in 400 cc. of water and boil the whole for fifteen minutes, as most specimens of glycerine contain a small quantity of some substance which is incapable, at a boiling heat, of reducing an alkaline solution of copper. After boiling, distilled water is added till the solution equals one litre. This is then allowed to stand until clear.

It must be standardized by a solution of grape sugar of known strength for exact determinations, and is sure, if made as above, to require dilution. If intended only for rough clinical purposes, the above quantities may be diluted to 1250 cc. Ten cc. will then closely approximate the equivalent of 5 centigrammes of sugar.

The process of testing is the same as that ordinarily used with Fehling's solution. 10 cc. of the copper solution is put in a flask with 50 cc. of water and boiled, and the solution of glucose or the saccharine urine (which should not contain more than one per cent, urine generally requiring dilution to secure this), is slowly added from a burette, the contents of the flask being kept boiling until the original blue color of the solution has entirely disappeared. The quantity used must then have contained five centigrams of sugar.—*Brit. Med. Jour.*, March 27, 1886.

BOOK REVIEWS AND NOTICES.

THE COMICAL CURE-ALL. Merry Medicaments for use in all branches of the Medic and Chirurgic Art. Designed for Physicians as well as their Patients. *Cincinnati: Anton Bicker.* 8vo.; pp. 252; cloth.

A collection of ridiculous stories and jokes, relating to physicians, patients and pharmacists, some of them really amusing, some rather broad.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume the Third. Edited by J. EWING MEARS, M. D., Recorder of the Association. *Philadelphia: P. Blakiston, Son & Co.*, 1885.

This volume is another warrant of our expectation of good work and valuable papers from this Association. The several papers have already been widely read by the profession in the pages of various medical journals, and are here put in permanent form for future reference. Where all are of so much merit it may not be well to institute comparisons, but the two papers which have seemed to us of special value were those of Dr. Jno. B. Roberts, on Surgery of the Brain, and Dr. Senn, on Air Embolism.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE EAR. By OREN D. POMEROY, M. D., etc. Second edition. *New York: D. Appleton & Co.*, 1886. 8vo.; pp. 413; cloth. (St. Louis: J. L. Boland, J. H. Chambers & Co.)

Dr. Pomeroy has given the profession in this compact book the sum total of what is known respecting diseases of the ear. The typography is excellent, and the numerous woodcuts clear and distinct.

The author omits chapters on anatomy and physiology on the score that these subjects can be studied more exhaustively in books specially devoted to their consideration.

In the chapter on "Unclassified Diseases," the author gathers information on deafness due to syphilis, malaria, quinine, mumps, etc., a very interesting assemblage of observations.

Attention is very pertinently called to the uselessness of all the patent "ear drums," audiphones, and other money-catching contrivances foisted on the public, and advertised so extensively. T.

MIND IN NATURE. Volume I., Large 8vo.; pp. 192; cloth. *Chicago: Cosmic Publishing Co.*, 1885.

The numbers of this journal bound together make a very attractive volume; and the papers published in its columns last year are well worth preserving in permanent form, being valuable contributions to the as yet exceedingly limited literature dealing with this department of research in a truly scientific manner.

A TEXT-BOOK OF NURSING. For the use of Training Schools, Families and Private Students. Compiled by CLARA S. WEEKS. *New York: D. Appleton & Co.*, 1885. 12mo.; pp. 396; cloth.

This is an admirable volume for the purpose indicated upon the title page. It is prepared by one whose experience well qualifies her to impart instruction. It has been adopted as the text-book by the St. Louis Training School for Nurses. They could not have chosen a better manual for the purpose.

E. M. N.

THE SEVENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. *Springfield, Ill.: H. W. Rokker*, 1885. 8vo.; pp. 613; cloth.

This volume contains much valuable information regarding matters of hygiene and vital statistics. The Illinois State Board of Health and its eminent sanitarian and able secretary, Dr. Jno. H Rauch, stand *facile princeps* in their respective fields of sanitary work, and the records of that work are valuable for reference to all having interest or responsibility in such work.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M. D., etc. Sixth edition, thoroughly Revised, with forty Illustrations. *Philadelphia: Lea Brothers & Co.*, 1886. 8vo.; pp. 867; cloth, $4.50; sheep, $5.50. (St. Louis: John Linahan, J. H. Chambers & Co.)

We believe this book, as now revised, to be the best work on the subject in the English language. Prof. Smith is an eminent practical teacher, not a visionary theorist; and what he writes is the result of direct observation at the bedside

The introductory chapters constitute an admirable essay on infant mortality, the weight and growth of the child, lactation, the quantity of food required, whether the mother's milk or artificial food. There are contained in this many details and particulars as to infant feeding, concerning which many recent graduates, and some whose graduation was not so very recent, are woefully ignorant.

The article on scarlatina is one of special value and interest. We observe that Dr. Smith fully accepts the theory of Koch with reference to the influence of the tubercle bacillus in the causation of tuberculosis.

The chapter on the diseasee of the circulatory system is less satisfactory than most other parts of the work. Endocarditis and pericarditis, which would naturally be looked for here, are considered, and not as fully as their importance would suggest, under the headings of rheumatism and scarlatina respectively. In fact the only condition which is discussed in this chapter is that of cyanosis which is considered very fully and ably.

A chapter of eighteen pages hardly affords opportunity for adequate consideration of the cutaneous diseases of infancy and childhood.

Still, when all is said that may be in criticism, this still remains in most respects the most satisfactory work on the subject with which we have met.

THE FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE BRAIN. By JOHN B. ROBERTS, M. D., etc. *Philadelphia: P. Blakiston, Son & Co.*, 1885. 8vo.; pp. 80; cloth; $1.25.

This little volume contains the paper on cerebral surgery which Dr. Roberts read before the American Surgical Association at the meeting of 1885, and to which we have already called attention in the notice of the volume of transactions of that association. It is an essay well worthy the thoughtful consideration of all surgeons.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By the late CHARLES HILTON FAGGE, M. D., F. R. C. P., etc., including a Section on Cutaneous Diseases, by W. H. Pye-Smith, M. D., etc.; chapters on Cardiac Diseases by Samuel Wilkes, M. D., etc., and complete indexes by Robert Edmund Carrington, M. D., etc. Vol. II. *Philadelphia: P. Blakiston, Son & Co.*, 1886. 8vo.; pp. 883; cloth.

We have already called the attention of our readers to the value of this work in noticing the first volume when that came from the press. In this second volume appear the same evidences of diligent, painstaking research, of thorough familiarity with the clinical record of morbid processes in the hospital wards, and of pathological changes as demonstrated in the dead house by the scalpel and the microscope.

In this volume are discussed the following subjects, viz., Diseases of the Heart and Blood Vessels, Diseases of the Alimentary Tract,

Diseases of the Liver, Kidneys and Spleen, General Diseases of the Joints, Diseases of the Bones, Diseases of the Blood, Diseases of the Skin.

As indicated on the title page, the chapters on Diseases of the Skin, which had not been commenced by Dr. Fagge, were added by Dr. Pye-Smith, the editor of the work, while those on Diseases of the Heart and Blood Vessels which Dr. Fagge had not completed are here completed by Dr. Samuel Wilks, his senior colleague. The chapters on diseases of the liver, kidneys and spleen are full of interest to the general practitioner. The frequency with which diseases of the kidney are overlooked suggests the necessity of more thorough acquaintance with such works as this by the great number of practitioners.

We heartily commend this work to the consideration and study of our readers as one of the most valuable and reliable works on practice within their reach.

INFLAMED EGGS.—DR. D. F. WRIGHT in an article of The Chemistry of Food and its Adulterations, says that there is a little known condition of the egg which considerably impairs its sanitary value as an article of food.

"Soon after it became the practice to transport eggs in large quantities and to long distances by railway trains, it was found on their arrival that adhesion had taken place between the membranes of the yolk and those of the skin, so that the yolk could not be turned out of shell unbroken. On examination by experienced pathologists this was found to be the result of true inflammation; the material of the adhesion was found to be precisely the same as that of the plastic exudation in inflammation of the lungs or bowels. It will at first sight seem absurd to speak of inflammation in such an unformed mass as an egg; but this arises from our forgetting that, structureless and unorganized as it seems, the egg, even when fresh laid is a living being and capable of disease from external causes. The cause of this inflammation is undoubtedly the shaking and friction from the motion of the cars, and it cannot but render tne egg more or less unhealthy, as the products of inflammation can never be as salutary in food as those of healthy growth.—*State (Tenn.) Board of Health Bulletin*, Feb., '86.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Brain Rest. By J. Leonard Corning. M. D., second edition revised and enlarged, with additional illustrations. New York and London, G. P. Putnam's Sons, 1885. 8vo.; pp. 135; cloth; $1.00. (Boland.)—Electricity in Medicine. By Ambrose L. Ranney, M. D., New York; D. Appleton & Co., 1885. 8vo.; pp. 147; cloth. (J. H. Chambers & Co.)—The Methods of Bacteriological Investigation. By Dr. Ferdinand Hueppe. Trans. by Hermann M. Biggs, M. D., illustrated by thirty-one wood cuts. New York, D. Appleton & Co., 1886; 8vo., pp. 218; cloth. (J. H. Chambers & Co.)—The Comical Cure-All. Cincinnati, Anton Bicker. 8vo., pp. 252; boards. (J. H. Chambers & Co.)—Reference Handbook of the Medical Sciences. By various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by Albert H. Buck, M. D., New York City, Vol. II. New York, Wm. Wood & Co., 1886. 4to.; pp. 814; cloth. (J. H. Chambers & Co.)—Boylston Prize Essay. The Best Preliminary Education for the Study of Medicine. By Edward S. Stephens, M. D., Lebanon, O. Western State Print. 8vo.: pp. 45; cloth.—Practical Clinical Lessons on Syphilis and the Genito-Urinary Diseases. By Fessenden N. Otis, M. D., New York. Printed for the author. 8vo.; pp. 584; cloth.—Students' Manual of the Diseases of Menstruation. By John N. Upshur, M. D., New York and London. G. P. Putnam's Sons. 8vo.; pp. 200; cloth.

PAMPHLETS AND REPRINTS.—Reflex Irritation from Hypertrophy of Labia Minora. By C. L. Gwyn, M. D. (Trans. Tex. State Med. Assoc. 1885.)—Annual Report of Superintendent of Cincinnati Sanitarium, 1185.—Report of case of Pelvic Abscess, with Autopsy. Remarks upon the Treatment. By H. T. Byford, M. D.—Esthetics of Medicine. By H. A. Cottill, M. D. (Am. Pract. and News, March 20.)—Eleventh Annual Announcement of Meharry Medical Department of Cent. Tenn. Coll.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the U. S. for 1885. Washington: Gov't Printing Office, 1885. 8vo.; pp. 179; paper.—Production and Prevention of Perineal Lacerations during Labor, with description of an Unrecognized Form. By Henry T. Byford, M. D. (Jour. of Am. Med. Assoc.)—The Utter Worthlessness of Sulphate of Quinine in the Treatment of Typhoid Fever. By Geo. M. Dewey, M. D., Keytesville.—Report of a Case of Cesarean Operation, with some comments. By Edward Wm. Jenks, Detroit, Mich. (Gyn. Transact, 1885.)—Clinical Lectures on Orthopædic Surgery. By A. Sydney Roberts, M. D., Philadelphia: P. Blakiston & Co., 1886. (Med. News, March 13-20, 1896).—Inebriety and Heredity. By T. D. Crothers, M. D., Hartford, Conn.: Case, Lockwood & Brainard Co., 1886. 8vo.; pp. 16; paper.—Typhoid Fever in Philadelphia. By Henry Leffmann. M. D.

REPORTS ON PROGRESS.

SURGERY.

Supra-pubic Lithotomy.—W. H. A. JACOBSON presented the following case to the Royal Medical and Chirurgical Society:

A laborer, æt. 19, was admitted into Guy's Hospital January 21, 1886. He had suffered with constant irritability of the bladder all his life, with marked symptoms of stone for five years, and with cystitis for a year. The lithotrite and sound gave evidence of more than one stone. For this reason chiefly lithotomy was preferred to lithotrity. Hypogastric lithotomy was made use of on account of the age of the patient, the long duration of the symptoms, and the great probability that the kidneys were impaired.

January 30, hypogastric lithotomy was performed, the bladder having been injected with ten ounces of water and the rectal bag introduced. The peritoneum was not seen. One stone was readily found on incising bladder, but prolonged search failed to find others. This was probably due to the mistake of keeping the bladder distended with fluid during the search, owing to which two other stones, small and light, escaped detection. No sutures in the bladder, or drainage-tube in the wound, or catheter in the urethra, were made use of.

Patient's recovery was somewhat retarded by an attack of pneumonia setting in the day after the operation. There was never any sign of extravasation or cellulitis. On the fourth and fifth days the wound and urine were distinctly ammoniacal, but this condition yielded to treatment. Two weeks after the operation, a large venous hemorrhage took place, and a few hours after a small calculus was removed from the wound; a few days later, another and smaller calculus escaped. On the twenty-third day urine was first passed naturally; by the fifth week micturition was normal.

It is evident now that owing to the small size of the largest calculus (only 300 grains), all might have been dealt with by lithotrity.

RICHARD BARWELL also contributed a paper on this subject, with reports of cases. He says:

A not unfrequent sequela of urethro- or vesico-vaginal lithotomy is an intractable form of vesico-vaginal fistula, of which several instances have been under the author's care; hence he rejected those methods in the following two cases:

CASE 1.—Rose A., æt. 9, admitted into Charing Cross Hospital, February 6, 1885. She was greatly emaciated, and was suffering with dribbling of urine and frequent micturition. A large vesical calculus was detected. On February 12 three ounces and a half of boro-glyceride solutiou, all that the bladder would hold, were injected, and Mr. Morgan passed a finger *per vaginam* to steady the stone and to prevent escape of fluid from the bladder by compressing the urethra against the pubes. The skin and linea alba, and then the thin fascia transversalis were incised. An exceedingly soft layer of fat separated the bladder from the abdominal wall; this was cautiously divided, the bladder opened and the stone extracted. The peritoneum did not come into view until the escaped fluid allowed the bladder to contract; the wall of that viscus, as also the abdominal wall, was sewn, a drainage-tube being placed between the two. The child suffered nothing after the operation, and by February 26 the wound had closed. The stone measured $2\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{1}{4}$ inches in its several dimensions, and weighed $2\frac{1}{4}$ ounces.

CASE 2.—W. W., æt. 60, but feeble and looking old, had frequent and copious hematuria, which was increased by the most delicate sounding; the prostate was enlarged. On sounding, a stone was found. Measurement in three directions gave $1\frac{1}{8}$, $\frac{13}{16}$, $\frac{7}{16}$ inches, but the condition of parts, and the possibility that a papilloma might also be in the bladder, induced Mr. Barwell to prefer supra-pubic lithotomy to either the perineal operation or lithotrity.

April 30.—Sixteen ounces of boro-glyceride solution were injected and retained by tying a tape round the penis. The skin, linea alba, and transversalis fascia being incised, the lower fold of the peritoneum was found to lie about three quarters of an inch above the margin of the pubes. The membrane was pushed without the slightest resistance from the front of the bladder. The man suffered no pain after the operation, the wound healed quickly, save a sinus just above the pubes, from which urine oozed in small quantity, and which did not thoroughly heal till July, the man remaining well in health.

The author points out that the high operation for stone has been too much neglected, and may well be used in cases other than those of exceptionally large stones. For children it is particularly well adapted, and he contends that for female children no other lithotomy should be practised. The danger of a permanent fistula is *nil*, his case (No. 2) being he believes, the longest persistence on record. The danger of urinary infiltration may be avoided with practical certainty by proper after treatment. In a properly conducted operation the peritoneum is safe—injection of the bladder will always raise it high enough, and as it is barely attached to that viscus it yields upward to the slightest touch of the finger. The author shows that distension of the rectum has a very small effect on the anterior peritoneal fold. He also points out that Petersen's experiments give unreliable results, and that Garson's table in reality supports his (Mr. Barwell's) views, and he details (in an appendix) fourteen experiments of his own in proof of his contention.

The Treatment of Intestinal Obstruction by Laparotomy.—DR. RANDOLPH WINSLOW reports a case of acute intestinal obstruction successfully treated by laparotomy. In commenting on the treatment Dr. Winslow expresses his opinion decidedly against any and all severe methods of attempting to overcome the obstruction whether by rough manipulations, or by rectal injections under strong pressure. On the other hand, he deprecates resorting to operation until a fair trial of medical means has failed to relieve the condition, and until it is reasonably certain that there is some mechanical hindrance to the passage of the feces, which will terminate fatally unless relieved by operation. For obstruction in the large intestine, colotomy would in many cases afford relief. For persistent obstruction of the small intestine, his preference is decidedly in favor of laparotomy in the linea alba below the umbilicus, under rigid antiseptic precautions, as being the most precise, scientific, and rational means of discovering the cause and seat of trouble, and of remedying it at the same time. Whilst not underrating the risks of laparotomy, he does not think an exploratory incision to be a more serious procedure than abdominal taxis, or enemata under heavy pressure, and he thinks it much more certain and reliable in its results.—*Am. Jour. of the Med. Sci.*, April, 1886.

Insanity Following Gunshot Injury to the Head; Cerebral Cyst; Aspiration; Recovery;—DR. CARLOS F. MACDONALD records a case which shows the following:

1. A lesion located anteriorly to that portion of the first frontal gyrus included in the centre marked 12 by Ferrier, and which is now regarded as the anterior boundary of the motor area giving rise to psychic derangement, and unaccompanied by motor or sensory disturbance, furnishes affirmative evidence, both positive and negative, of the correctness of the view held by a majority of modern neuro-physiologists, namely, that the motor and sensory areas of the cerebral cortex are not located in that portion of the brain lying anterior to the coronal suture.

2. That when not in a state of inflammation, the brain substance may be punctured with a fine, clean needle, with comparative immunity from danger or disturbance of function.

3. The certainty that recovery in this case was directly due to operation.

4. Cases of insanity dependent upon injury to the head, and accompanied, as they usually are, by mental irritability and explosions of temper, are, as a rule, so seldom benefited by drugs or the so-called moral treatment, that they have come to be regarded as incurable from the beginning. That the prognosis is bad in a considerable proportion of cases of traumatic insanity must be conceded; but it is equally true that a certain limited number may be cured, or, at least, greatly improved by timely surgical interference. Obviously, the cases which are most likely to be benefited by operative procedure are those of which the one reported is a type—that is, cases with depression of the skull, in which the location of the brain lesion can be determined with a reasonable degree of accuracy, the site of the lesion being such as to render the use of the trephine anatomically admissible.

By reason of the numerous and valuable contributions which have recently been made to our knowledge of neuro-physiology and the localization of cerebral disease, the practice of trephining for the relief of epilepsy resulting from injury to the head has been revived, and it would seem to be not unreasonable to maintain that the arguments advanced in favor of the operation for epilepsy would apply with even greater force to cases of lunacy depending upon similar causes.—*Am. Jour. of the Med. Sci.*, April, 1886.

A Vesical Calculus of Unusually Large Size Removed by Supra-Pubic Cystotomy.—WALTER RIVINGTON reported to the Royal Medical and Chirurgical Society, the following case:

Thomas Knight, æt. 61, entered the London Hospital, January 13, 1885. For sixteen years he had been troubled with symptoms of calculus. On examination per rectum, a large, round, smooth swelling was detected in the situation of the prostate gland. No stone could be detected with a sound. February 24, median urethrotomy for the purpose of exploration was performed. It was ascertained that the hard mass was not connected with the prostate, and that the bladder wall was pressed over by it to the right side. A sound pushed far back into the bladder at length struck a stone, which proved almost immovable when grasped by forceps. Under these circumstances it was decided to open the bladder above the pubes. A staff was introduced into the bladder and the usual incision made above the pubes. The end of a stone was now detected to project into the bladder, through an opening posteriorly. It was grasped with forceps, but could not be moved. Lithotrites were useless. The stone was therefore broken up with a chisel and mallet and extracted piecemeal. After the extraction, the wound in the bladder and that in the soft parts were separately sutured, with insertion of a drainage-tube, and a silver tube was inserted into the perineal wound. The patient rallied well from the operation. The supra-pubic incision was reopened on the 28th as there was evidence of the escape of urine through the bladder wound. The surface of the wound was sloughy, but gradually cleaned and filled up with granulations. March 21, the patient was allowed to be up for an hour in a wheeled chair. April 17, the opening into the bladder had closed by granulation, and with the exception of a fistula in the perineum, the patient had now recovered from the operation and was up daily. At the end of May, three months after the operation, he had a renewed attack of cystitis. His urine became ammoniacal, diarrhea ensued, and he died June 4. Permission was only obtained to inspect the abdomen. Suppurative nephritis of the left kidney was found, with cystitis of the bladder and of the large pouch in which the stone had been lodged.

After the operation the collected pieces of the calculus weighed 23 ounces avoirdupois. In its restored form it measures in circumference 13 inches by 10, in length $4\frac{3}{4}$ inches, in width $3\frac{1}{4}$, and 3 inches in thickness, and weighs $22\frac{1}{2}$ ounces. It is mainly composed of lithic acid and lithates. Although not absolutely the largest calculus ever removed from the human bladder during life it appears to be the largest removed during life with recovery

of the patient from the immediate effects of the operation. The case stands alone as regards the inclusion of the calculus in a pouch, the difficulty of the operation, and the breaking up of the calculus before extraction.

MEDICINE AND THERAPEUTICS.

Right-sided Endocarditis.—DR. BYROM BRAMWELL finds:

1. That right-sided endocarditis is much more frequent than is usually supposed; and that this conclusion is in no way contradicted, but on the contrary rather confirmed, by clinical evidence and clinical facts.

2. That Sibson's arguments against the tricuspid murmur of early acute rheumatism being indicative of right-sided endocarditis, are not valid.

3. That a tricuspid murmur occurring in the early stages of acute rheumatism in a previously healthy person who is not anemic, is indicative of a rheumatic affection of the right heart.

4. That whether (*a*) the tricuspid regurgitation is the *direct* result of the inflammation of the tricuspid valve, or whether (*b*) it is due to a rheumatic affection of the wall of the right ventricle, with resulting relative or muscular incompetence, the pathological evidence seems to show that when the right heart is so affected in acute rheumatism as to produce a tricuspid leakage, inflammation of the endocardium of the right heart is often (usually?) present.

5. That although right-sided endocarditis is of frequent occurrence, it is comparatively seldom followed by permanent organic disease of the tricuspid valve; in short, that right-sided endocarditis is an eminently curable affection.

The importance of this conclusion, if it be correct, can hardly be over-estimated. It is not a conclusion of mere scientific and pathological interest, but is of the greatest practical and therapeutical value. It shows the immense importance of rest in the treatment of endocarditis. The only reasonable explanation of the fact that mitral endocarditis is more severe and more frequently terminates in permanent valvular disease than tricuspid endocarditis, seems to be that the closure of the mitral segments is more forcible and that the inflamed mitral segments are subjected to greater strain than the tricuspid segments. In treating cases of mitral en-

docarditis our main objects should be to imitate nature's method of cure; to place the mitral valve, so far as we are able to do so, in the same condition as the tricuspid valve; in other words, to reduce the force (and also the frequency) of the cardiac contractions and to allow the products of inflammation to be absorbed just as they are usually absorbed on the right side of the heart.—*Am. Jour. of the Med. Sci.* April, 1886.

Recurrent Headaches in Children.—RUSSELL STURGIS reports that he has found excellent results in the treatment of recurrent headaches of children, by the use of fluid extract of ergot. These headaches affecting children otherwise healthy, generally come on in the morning. The pain is localized in some particular part of the head, either side, frontal region or vertex. The pain is severe during the seizure, generally preventing study or play. There may be optical illusions of sparks, bands and spots of color. There may or not be nausea. There is generally a sense of chilliness. He has found ten minim doses three times a day to give prompt and permanent relief.—*Boston M. and S. Jour.*, Feb. 11, 1886.

Masking Quinine.—Various means have been recommended for disguising or concealing the intense bitterness of quinine, which renders it always so difficult of administration to children and many adults as well. While the compound elixir of taraxacum and compound elixir of licorice serve a tolerably good purpose if freshly mixed with the quinine before administration, they have never proven entirely satisfactory.

Prof. Hugo Engel (*Med. and Surg. Reporter*, Feb. 27) has recently discovered by what may be called a fortunate accident, that a combination of muriate of ammonia with powdered extract of licorice gives the most perfect disguise for the bitterness of quinine that has yet been found. He suggests the following formula:

℞ Quiniæ sulphatis,
Ammoniæ muriatis, - - - - aa gr. j.
Pulv. ext. glycyrrhizæ, - - - - gr. iv.
M. Ft. pulvis.

For larger doses it is not found necessary to increase the licorice and the muriate of ammonia in the same proportion with the quinine, ten grains each of the licorice and the ammonia serving to cover ten grains of quinine.

The ammonia muriate and the licorice must be kept finely powdered, and intimately mixed in a dry warm place.

In preparing for use, a small quantity of water should be added first and a paste made, else the licorice will form little balls and swim upon the water, and will then be mixed with difficulty. As soon as all is thoroughly mixed to the consistency of syrup, the remainder of the water should be added, about half a tumblerful for twenty grains of the muriate of ammonia.

It is not stated whether this mixture will form a permanent disguise in mixtures to be prepared by the druggist, or must be prepared extemporaneously by patient at time of taking the medicine.

Janeways Laxative Pills.—The Editor of the *New Eng. Med. Monthly* gives the following as the formula for these pills:

℞ Ext. belladonnæ
Ext. nucis vomicæ, - - - - aa. gr. iij.
Res. podophyllin, - - - - - gr. vj.
Aloes. Soc., - - - - - - gr. xij.

M. Ft. mass et div. in pill no. xij. Sig. Take one on retiring.

Therapeutic Use of Hippurate of Soda.—GARROD having demontrated the efficacy of the hippurate of soda as a solvent of uric acid, Dr. Bon proposes to utilize it in the treatment of affections characterized by an excess of uric acid in the economy, and suggests the following formula:

℞ Sodii hippurat, - - - - - - 5.15
Lithii carbonat., - - - - - 1.15
Glycerinæ, - - - - - - .15
Aquæ canellæ, - - - - - 240.

℞ Sodii hippurat., - - - - - - 7.
Potass. chlorat., - - - - - 1.5
Syr. simp., - - - - - - 24.
Aquæ. menth.,- - - - - - 180.

M. Four to six tablespoonfuls daily.—*Jour. de Méd de Paris*, 21 Feb. *Lyons Méd.*, 28 Feb., 1886.

A Classical Remedy for Hiccough.—G. A. GIBSON cites the Hippocratic aphorism, "Sneezing coming on, in the case of a person afflicted with hiccouch, removes the hiccough." He cites

also the story from Plato's dialogues in which the physician Eryximachus, directed Aristodemus, in order to stop his hiccough to hold his breath; if this should fail, to gargle with a little water; and this also failing, to tickle his nose with something and cause sneezing.

He has found, as a matter of fact, that tickling the nostrils is an effective method of arresting a paroxsym of hiccough, and it is often unnecessary to produce sneezing, as a less degree of irritation will generally produce the desired effect.—*Edinb. Med. Jour.*, April, 1886.

Antirheumatic Syrup.—A. FORT has found the following a serviceable combination.

℞ Potass. iodidi, - - - - - - 20. = ℥v.
Potass. bromidi, - - - - - = ℈iv.
Syr. gentianæ, - - - - 575. = ℥xviij.
Tr. iodinii, - - - - - - 20 drops.

M. Sig. A tablespoonful morning and evening in chronic articular rheumatism. Besides this, paint the painful joints with tincture of iodine.—*L' Union Méd*, Jan, 16, 1886.

For Rheumatism.—A. J. CONGER has personally tested the following and commends it:

℞ Potass iodidi, - - - - - - ℥ijss.
Tr. cimicifugæ, - - - - - - ℥iss.
Vin. colchici sem., - - - - - - ℥i.
Ext. hyosciami fl., - - - - - - ℥ss.
Syr. simplici, - - - - - - v.

M. Sig. Teaspoonful well diluted every four hours.—*New. Eng. Med. Mo.*, March, 1886.

Acute Articular Rheumatism in a Woman and her New-born Child.—A woman aged 35 years, and in the last part of her fifth pregnancy, was taken, May 1, with symptoms of acute articular rheumatism, the left hip and right wrist joint being affected. Sodium salicylate was administered. The disease continued unabated, when May 5 a healthy child was born; the delivery was rapid and the post parturient condition in no wise affected the course of the fever. May 8 the infant exhibited signs of the rheumatic disease; slight swelling of back of both feet,

heightened temperature, small appetite. May 9, foot swelling increased, also swelling and reddening of the first phalangeal joint of left index finger, and swelling of left hip; increased temperature. 10, redness and swelling over both hands and fingers and involving both hip joints. No heart symptoms. Child lies motionless and cries when moved. The disease was protracted both in mother and child, both taking the salicylate. The mother was free from fever not until June 10; she could not tolerate large doses of the salt; there were no complications. In the child the fever persisted till end of May, and active movements in the hands appeared in the second week of June; in the legs, the last of June.

The salicylate induced such persistent vomiting and restlessness that after a few days it was discontinued and a pure expectant treatment adopted.

The reporter, (Dr. Schaefer), considers this to be an undoubted case of acute articular rheumatism excited by intra-uterine infection. The period of incubation in this case would appear to have been 4–7 days. The case is such a rare one that Dr. Schaefer finds record of only one other. Dr. Pocock, in the *Lancet*, (1882, page 804,) details the case of an infant, which, immediately after its birth, exhibited unmistakable signs of rheumatic fever, the mother suffering from acute articular rheumatism. The infantile disease disappeared under use of the salicylate.—*Berlin Klin. Woch.*, November 5, 1886.

DERMATOLOGY.

REPORTED BY JOSEPH GRINDON, M. D.

Recent Progress in the Treatment of Chancroid.—CHAS. W. ALLEN, contributes an article to the *Journal of Cutaneous and Venereal Diseases*, which may be summed up as follows:

In phagedenic cases scraping and excision of undermined edges followed by the thermo-cautery, and dressing with diluted liquor of Van Swieten, has been successful.

To abort soft sores Hebra uses tr. saponis viridis as a detergent, followed by the dusting on of salicylic acid, which is covered with a plaster. After three days there forms a white scab which detaches under an emollient plaster, when the sore easily heals.

Iodoform is used in a variety of ways, one of the best for extensive ulcerations being to dust the powder over the sore, covering that with a thin layer of absorbent cotton, over which a solution of iodoform in collodion is painted, the whole covered with a top dressing of plain collodion to obviate the odor.

Vidal uses a powder of one part of pyrogallic acid to four of starch.

Of all caustics the thermo-cautery is the best, and since the introduction of cocaine has lost its terrors.

Baths at 104° F. have been found to destroy the virulence of the disease.

We have ourselves seen a frightful phagedenic sore which had continued to encroach upon the surrounding tissues in spite of everything that could be done to check its progress, including the use of the actual cautery, changed into an easily healing ulcer by twelve hours continuous irrigation with cold water.

M. Hubert says that a temperature of 100.4° F. will, if sufficiently long continued, change a chancroid into a simple sore.

Pyrogallic Acid in Lupus.—In another number of the same magazine, the same author speaks of the use of pyrogallic acid in lupus, psoriasis, etc.

Jarisch uses a ten per cent vaseline ointment.

Schwimmer first uses vaseline to remove all secondary products, then Jarische's ointment as above, three or four times daily for four to seven days; then wiping off the ointment, vaseline is again applied to remove any acid that may remain; finally, a dressing of mercurial plaster is applied.

Besnier sprays or paints on a saturated solution of the acid in ether, and then covers the surface with liquor guttaperchæ.

A case of fatal poisoning from the external use of this drug has been reported.

In psoriasis it is best used as a fixed dressing, dissolved in liquor guttaperchæ or collodion.

In the discussion of this paper before the New York Dermatological Society, the consensus of opinion seemed to be that pyrogallic acid was less efficient in the treatment of psoriasis that chrysarobin, although perhaps better suited to special cases, and that when applied to malignant ulcers it did not affect the hardened edges.

Furunculosis.—The latest treatment of boils is founded on the fact established by Pasteur and Loewenberg, that it is an inoculable affection, due to the presence of a vegetable parasite, the *torula pyogenica*, and consists in thickly painting the surface affected, as well as a margin of sound tissue with tr. iodinii. More severe cases are to be touched with carbolic acid or acid nitrate of mercury. Internally sodium hyposulphite or some preparation of sulphur is to be used.

Pomade for Eczema of the Scalp.—LASSAR suggests the following for eczema of the scalp:

℞ Acidi salicylici, - - - - - 1 gramme.
Tinct. benzoin, - - - - - - 2 "
Vaselini, - - - - - - 50 " M.

To soften the crusts and cleanse the hair he employs a two per cent salicylated oil.—*L'Union Méd.*, Mar. 13, '86.

A Case of Multiple Myomata of the Skin Accompanied by Severe Pain.—DR. W. A. HARDAWAY records an intersing case which, viewed from a purely clinical standpoint, bears a strikingly close resemblance to the cases recorded by Duhring and Kosinski, which were looked upon by the authors mentioned as instances of pure neuroma of the skin. From a careful study of these cases Dr. Hardaway feels justified in concluding, that certain new growths in the skin and subcutaneous tissues, accompanied by severe pain, both of a spontaneous character, and as produced by direct irritation, may be of widely different histological structure; and that, therefore, from a clinical standpoint, we are not justified in assuming that a painful tumor or tubercle is a neuroma (fibroneuroma) from the subjective symptoms that it presents, or from the macroscopic character of the lesions.—*Am. Jour. of the Med. Sci.*, April, 1886.

DISEASES OF RESPIRATORY PASSAGES.

REPORTED BY L. CH. BOISLINIERE, JR., M. D.

Bronchial Asthma viewed in the Light of the Pathology of Hay-Fever.—SIR ANDREW CLARK states that hay fever occurs in winter as well as in spring, in mid-ocean or in the heart of great cities;

it arises under the influence of intense light, of heat, of certain odors, etc. There is evidently a constitutional predisposition and immediately exciting cause.

The subjects or their families are more or less "neurotic," and generally such diseases as gout, urticaria and eczema, neuralgia, epilepsy and pulmonary diseases may be found among them. The agent that regulates the phenomena of hay-fever is a nervous one.

Frequently all nasal symptoms disappear, and in their place there arises an attack of bronchial asthma, thus establishing a connecting link between the two affections.

"And the more closely and critically one examines them, the stronger grows the conviction that they possess the same hereditary, constitutional and local alliances, the same structural changes exist in both; that the same causes operate in their production; that they follow the same course; that eventually they have like issues, and that the differences to be found in their effects are to be explained by the difference of the parts affected, and the widely different importance of their respective functions in the economy. If all this be true, if it be true that hay-fever is a neuropathic vascular disease, if it be true that all essential facts of this malady find an adequate and complete explanation in the hypothesis of a nervous origin of the affections, and if it also be true that we should admit no more causes of a thing than those that are both true and sufficient, why should we not consider bronchial asthma to be the same disease as hay fever, and why should we invent unnecessary and unphysiological explanations of phenomena otherwise to be accounted for by demonstrable facts?"

He contends that the nervo-vascular swellings, like those of hay-fever, arising suddenly in the mucosa of the bronchial tubes, now in one part of the lung, now in another, occasionally completely occluding the tube, occasionally narrowing it, adequately explain the phenomena of bronchial asthma.

The theory, as laid down by Williams, Gairdner and Bergsch that asthma is due to a spasmodic contraction of the bronchial muscles is not tenable, since we have no proof that the contractions, under stimuli, are complete, quick or sufficient enough to account for the local phenomena of asthma. Paul Bert considers these phenomena quite inadequate. Again, when the chest is expanded, the bronchi contract only slightly; in asthma the chest is dilated. If the spasm of the bronchioles be so intense, why are the lungs full

of air? why is there clearness, instead of dulness, on percussion?

The sudden changes in pitch and locality of the asthmatic râles could not emanate from the contraction of the bronchial muscles, which are slow, persistent and progressive. He summarizes his belief in the following propositions:

1. Asthma is a nervo-vascular trophic disease and has its roots in a special vulnerability of the respiratory mucous membrane, of the respiratory nerve centres and of certain portions of the sympathetic.

2. The irritation exciting the nerve discharges which bring about the asthmatic paroxysms, may arise in the blood, in any one of the mucous tracts, but more particularly the respiratory one, in certain cutaneous inflammations, and in the central nervous system itself.

3. The paroxysm begins by a diffused hyperemic swelling of the bronchial mucous membrane, and continues by the development of circumscribed congested swellings thereon, which come and go, and resemble the swellings of the skin in nettlerash.

4. At first these swellings become coated with a viscid mucus, hindering the entrance and exit of air, and by their vibration producing the characteristic dryer râles. After free secretion these swellings subside, dyspnea is relieved, and moist take the place of dry râles.

5. The secretions from the swellings, being sometimes acrid, may excite contractions of the bronchial muscles, but such contraction can not become the chief factor in evolving the asthmatic paroxysm.

6. Both the peripheral nerves and respiratory centres being irritated by the diminished and insufficient aëration of the blood, the inspiratory muscles are thrown into violent and even tetanic contractions.

7. These violent inspiratory efforts, increasing the Hallerian extension force of the thoracic walls straighten the bronchial tubes, and, notwithstanding the tendency of inspiratory forces to increase the size of the swellings, make the entrance of air into the lungs far easier than the exit.

8. The egress of air is greatly hindered both by the compression of the smaller bronchi, containing the mucous wheals, and relaxation of all the passages, which thus lose their straight direction. The act of expiration is so prolonged that it is frequently inter-

rupted by the violent inspiratory efforts, originating in the inspiratory nerve centres, through the circulation of imperfectly oxygenated and decarbonized blood. The alveoli are distended with air, the diaphragm is depressed, the chest dilated, breathing becomes more and more difficult, death seems imminent, and the paroxysm is at its height.

9. After a time the bronchial mucosa begins to secrete, the excitability of the respiratory and vaso-motor centres is exhausted, respiration becomes easy, lividity of the face disappears, restless anxiety disappears, and the attack is brought to an end.—*Am. Jour Med. Sciences.*

Terpene in Catarrhal Phthisis, Hemoptysis, Chronic Bronchitis.—PROF. GERMAIN SÈE, in the *Bulletin de l' Académie de Médicine*, No. 30, 1885, gives the following résumé of his paper on this subject:

1. It (terpene) diminishes and quickly arrests purulent expectoration in catarrhal forms of phthisis, whether the muco-purulent secretions proceed from the bronchi irritated by tubercle, or from the walls of pulmonary cavities, whether the malady is at an early stage, or even if cavities are already formed, terpene should be used whenever the formation of pus is sufficiently abundant to tire the patient, to exhaust the strength, or to cause him to waste away.

2. It should be used with success in the hemoptysis of the early stages of tuberculosis; that is to say, when the disease has not yet developed large cavities, with aneurisms of the pulmonary arteries.

3. In the treatment of pulmonary catarrhs, of chronic bronchitis not dependent on asthma, and only producing dyspnea by choking the bronchi, terpene constitutes the best method of lessening bronchial hypersecretion.

4. The action is quick, sure and free from physiological inconveniences, rendering it preferable to preparations of syrups of turpentine or tar, or of shoots of pine which contain so little of it, and also to essence of turpentine which is not tolerated. It even offers advantages over creosote on account of its perfect innocuity and easy digestion.

5. The best way of administering this medicine is either in the form of pills or tincture, and the best dose is one gramme.

6. In catarrhal or emphysematous, or nervous asthma, which is to be distinguished from primary catarrh, iodine and pyridine have

an ncontestable superiority."—*Med. and Surg. Reporter*, Jan. 30, 1886.

Terpene, a crystal, is soluble in solutions containing a small percentage of alcohol. Consequently a good formula would be

Terpin.,	gr. xxxij.
Elixir simplicis,	℥ij.

M. Sig. One teaspoonful three or four times a day.

Terebene, a similar preparation is a liquid, and is given in doses of five to ten minims dropped on a lump of sugar. The orthography of "terpin" seems to be unsettled, as it is variously spelled, "terpine," or "terpene," or "terpin" and "turpine".

Coryza.—DR. FLINT suggested that coryza is not due to a cold but to a parasite. It often occurs when there has been no exposure. For its cure he advises quinine in two-grain doses, three or four times a day. He mentioned also that it has been reported that the insufflation of camphor and quinine has been proven abortive as well as curative of the affection.—*Jour. Am. Med. Assoc.*

Chromic Acid to Secure Breathing Space in an Occluded Nose has been employed by Dr. M. Bregsen, of Frankfort-on-the Main, his procedure being to imbed a few crystals of the acid in cotton applied to a silver probe, and thus oppose the crystals to any desired point of the mucous membrane; the mucus will dissolve the acid, the strength being limited by the duration of the application. —*Am. Jour. Med. Science*, April, 1886.

Digital Examination of Nasal Chambers and Denudation of the Turbinated Bones in Treatment of Chronic Nasal Catarrh.—DR. HARRISON ALLEN, considering the anatomical character of the mucous membrane in chronic nasal catarrh to be so far changed, the writer has been studying and treating these structures as though they were bone and periosteum respectively. The patient is anesthetized, the finger is inserted into the nostril and gently pushed upwards and backwards, until it reaches the plane of the level of the middle turbinated bone. If the membrane be healthy, it is firm, resisting, and resilient; if chronically inflamed, it is soft, and is at once detached from the bone. Any malposition of the bone can now be rectified. If the bone be diseased, as is frequently evidenced by the deposition of the products of inflammation, the result of prolonged sequestration, the bone may then be scraped.

The anterior free end of the bone may now be examined and its position corrected. The lower plane of the nose should be explored; but this is less satisfactory by digital examination than by direct ocular inspection, as there is more resistance.

The bleeding is slight and easily controlled. The examination takes but a few minutes. The denuded surfaces become covered with normal membrane; the discharge is less in quantity and less viscid.

By the above procedure cases of the most pronounced type of fetid catarrh have been further advanced in improvement than by a long course of local treatment. After denudation the electro-cautery, solution of nitrate of silver have the happiest effects. Should the membrane become tense it may be deeply incised or a a small portion scraped.—*Am. Jour. Med. Sc ence*, April, 1886.

PATHOLOGISTS AND CLINICISTS.—JONATHAN HUTCHINSON says: "I should be sorry to suggest that the two sets of workers are in any sort of antagonism, and yet it does seem somehow as if, like the two sides in a game at cricket, they could not both be in at the same time. You will remember that, whether in or out, it is necessary to a good game that both play well. The team so brilliantly led by Paget gave up their bats twenty years ago to that of which Virchow is the captain. The latter has had a splendid innings and made a long score; but there are indications, I think, that it will shortly give another turn to its competitor, and not perhaps without some advantage to surgical science."—*Glasgow Med. Jour.*, May, 1886.

SUCCESS IN LIFE—"There are three ways you may try, there are three interests you have to consider, and it will depend upon the order in which you consider them how success will be measured out to you. The first interest is your own, and it may seem to you the greatest, whilst it is really the last. The second interest is truly greater, for it is the interest of your professional brothers; but the last is the greatest of all, for it is the interest of your patient, and with that is eternally related the interest of the art you practise." Dr. Syme quoted by Mr. Tait.—*Edinb. M. J.*, May, '86.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting March 18, 1886. Dr. McPheeters, President, in the Chair.

PESSARY LONG RETAINED.

Dr. Papin.—At our last meeting Dr. Prewitt reported a case in which a Hodge pessary had been introduced to relieve a procidentia, and had been left until it had imbedded itself in the tissues, having cut its way through portions of the cul-de-sac of Douglas, which had inclosed this ring as the ear of a lady incloses an ear-ring. In removing it, he cut the flesh away and then removed the pessary. My suggestion that he might have cut the ring and removed it as a lady would an ear-ring from the ear, seemed to strike him as something new. I then mentioned the fact that some years ago for the purpose of relieving temporarily a case of procidentia, I had introduced a ring which had remained only two months, and yet in those two months had imbedded itself so deeply that it was necessary to cut it in order to remove it.

The day after that last meeting of the Gynecological Society, a woman presented herself to me at the clinic at St. John's with a pessary that had been in there for the last seven years. It originally was a Hodge pessary, but by heating in hot water it had been shaped out into this ring which you see here.

Carrying out my suggestion to Dr. Prewitt at the last meeting, I concluded that I would cut this pessary and remove it; but not being prepared to perform the operation at that time, I told her to come the next day. I then sawed the thing through in two places, thus removing a section and enabling me to slide it around and remove the balance of the ring. I think it is the preferable operation; first, because it is not a bloody operation, only a few drops of blood having escaped, and then there is no danger of septic poison from the cut, etc.; and it is most effectual and allows the flesh to

remain in the cicatricial condition in which it had been brought. I look upon it as a perfect cure in this case. The puckering up of the tissues adhering to the sides of the pelvis forming a thick mass there, which eventually caused the deposit of new tissue, has completely cured the procidentia. I have frequently seen ulceration produced by pessaries, but only three times have I seen this accident.

Dr. McPheeters.—The irritation produced by the pessary relieved the procidentia?

Dr. Papin.—The cicatricial tissue forming in the cul-de-sac of Douglas effected the cure.

Dr. Boisliniere.—This case shows that it should be the rule to examine pessaries within three or four days after their insertion, because if they are going to cut at all they will have begun to do so by that time. You can tell at least in a week, whether they are going to cut into the tissues or not. If the pessary is beginning to cut, it can be removed and exchanged for another of a different size. This is very important. I have found in cases where pessaries are too long, they produce very bad effects. Then again in some cases, the uterus is not properly reposited before the pessary is inserted. It is of no use to introduce a pessary in a case of retroversion, unless the uterus has been properly reposited, because it will push forward against the urethra and press against the posterior fornix and body of the womb, and then it is sure to make an impression there. Gynecologists are often in too great a hurry to insert a pessary without replacing the womb. Very many insert them on their first visit: I have seen bad results from this practice. The first step should be to replace the uterus by some means. I have devised, as I have told the Society before, an instrument which answers the purpose admirably well. I frequently reposit the uterus with this instrument as the first measure. This instrument acts in the genu-pectoral position through the rectum. It is so devised that it assumes the curve of the sacrum and the end of it terminates a little above the promontory. The woman being in the genu-pectoral position, the knees properly separated, the instrument is inserted, guided by a finger in the vagina along the curvature of the sacrum until the rounded end of the instrument passes beyond the promontory, then by a movement of leverage, the retroverted fundus is turned forwards in an almost anteverted position. After properly replacing the womb and before allowing the patient to change her position,

the pessary is introduced; the patient is then allowed to lie down, and I introduce a sound to find out if I have been successful. In the great majority of cases success is complete. As a substitute for this instrument I use the depressor of Sims', which you all have in your case, one of the best instruments that Sims ever invented. I am very much surprised that some gynecologists in this city don't use it at all, because it is a very admirable instrument. This depressor of Sims has a ring at the end about half an inch in diameter. It is made of malleable metal, and should be bent to the proper curve of the sacrum. To be successful, this Sims' depressor should be inserted into the rectum about seven inches. I use this as a rectal repositor, the woman being in the knee-elbow position, and tip the uterus over. The objection has been raised against the reposition of the uterus, that it is sometimes necessary to use some force from the fact that there may be adhesions. Now, I have never yet found a uterus with adhesions that I couldn't break up with very little effort. I have seen thousands of cases of gynecology, and never yet have seen an adherent uterus which interfered with the reposition of the organ. These adhesions are too often a bugbear in the minds of gynecological writers. Of course there are limitations; that is, I would be certainly exceedingly imprudent and to blame for the mischief which would certainly follow, were I to use this instrument in replacing a uterus where there was pelvic cellulitis or pelvic peritonitis with adhesions around the womb. I don't mean adhesions of the utero-sacral ligaments, for these can generally be easily loosened, but I think a man would be very much to blame if he should attempt anything of the kind where there was pelvic cellulitis or peritonitis of any degree or stage or effused lymph from pelvic cellulitis or pelvic peritonitis: in fact the less that is done for the uterus in which there is pelvic effusion the better. Not even in subacute cases of cellulitis should we introduce the sound to reposit the uterus, or attempt any method of reposition, and, especially in acute cases of cellulitis should it be considered as extremely dangerous, as by this rash procedure the woman would certainly be confined to bed and placed in a very critical position for three or four months with probably the formation of a pelvic abscess. These, as I say, are the limitations. Before attempting reposition of the uterus I, therefore, always assure myself that there is no cellulitis or pelvic peritonitis, and then I am free to act. There is a certain mobility of the uterus which is characteristic of the ab-

sence of cellulitis. There are other repositors which are certainly good in some cases, for instance, in the virgin uterus, Emmet's repositor is very good. It has this fault, however, that when it is introduced and the uterus properly reposited in withdrawing it the uterus is apt to be put back where is was at the start. In using Emmet's repositor in retroversion the anterior lip should be pushed back as far as possible and held firmly there whilst withdrawing the instrument, then you will secure against a return to the former position, and secure complete success with this excellent repositor, useful also in anterversion. Some repositors have too large an end and cannot readily enter the neck of the uterus. If you place the patient in the genu-pectoral position and your finger is long enough, with one finger in the rectum and another in the vagina, it is possible to effect the reposition. The objection has been raised to using a repositor through the rectum, that the woman may have fissures of the anus or hemorrhoids; but that is no objection, because dilatation of the anus is desirable in those cases, and it will dilate the anus very effectually and without pain, if enough cocaine is used before introducing the repositor. I have never yet seen a case of fissure of the anus or hemorrhoids that would prevent the rectal reposition of the uterus. Adhesions of the utero-sacral ligaments are no objection, and the only objection is, as I said, the presence of pelvic cellulitis or peritonitis. No pessary should ever be introduced until these conditions are removed.

Certainly Hodge's pessary is very valuable, and especially Albert Smith's modification of it. In a great many cases, for instance, in a virgin uterus where there is retroversion, a soft ring pessary answers an admirable purpose. For this purpose I use simply the Peaslee's or the soft teething ring of children. I got this hint from Dr. Lemoine some years ago. It is an admirable pessary in young girls. It will easily assume the curve of the sacrum and transform itself into a Hodge pessary; but there is the objection of the very offensive smell of all soft pessaries, especially in the summer time, unless copious injections are used in the vagina. Pessaries do a good deal of mischief sometimes, yet I do not believe in the teachings of Dr. Storer, who said that he removes more pessaries than he introduces. It shows that Dr. Storer has not studied this question so thoroughly as he has done other questions. Now, Dr. Thomas and other authorities say they cannot do without pessaries. Without the pessary you cannot practice gynecology, be-

cause, if reposition is effected, the abnormal position will be reproduced.

Now the pessary for anteversion *par excellence* is the Gehrung pessary. It is recommended by Mundé, Graily Hewitt, and many other modern writers, the best authorities in gynecology. It is simple, does not block the vagina, and therefore is no impediment to coition. It has its fault, and it must be watched carefully, because it has a tendency to turn around, but by a proper selection of the size, adjusting it and a little attention to it, we will succeed generally in most cases of anteversion, and it is also very satisfactory indeed in cases of cystocele and prolapse of the uterus in the first degree, where there is prolapse of the anterior wall of the vagina, and the beginning of descent of the uterus in the first degree. I have never seen this pessary do any mischief in the way of causing erosion or cutting.

I remember the case of an old lady who had a hollow globe pessary made of gold, costing about $20 or $30. It was a ball about the size of a large orange. This woman had procidentia, and she wore that pessary for a long time. Finally, I attended her for some other trouble, and noticed that she had a very bad smelling vaginal discharge. I examined her, and found what seemed to be a large tumor. In response to my questions, she said that seven, eight or ten years before she had had a pessary inserted. I delivered the pessary with the forceps, with some difficulty on account of the incrustations in which it was imbedded.

Dr. Papin.—Did you use Tarnier's forceps?

Dr. Boisliniere.—No, sir; I used the short narrow-bladed forceps. They don't use these globe pessaries any more.

For poor people those old glass pessaries are good. Then there is a pessary which Dr. Prewitt suggested some time ago. Dr. Prewitt suggested in the case of procidentia to make use of a simple India rubber ball which is emptied of the air before introduction, and after its introduction the air fills it up. This answers a good purpose in a good many cases at the clinic. They are very cheap. I get two for 25 cents. It keeps the womb in very good position. It is a very good globe pessary. I call that Dr. Prewitt's pessary. Of course the smell is terrible, but in some cases it succeeds very well.

Dr. Ford.—Doesn't fluid get in, and by reason of being retained and undergoing decomposition cause the smell?

Dr. Boisliniere.—I think not. It is a thick rubber ball, a plaything for boys, and the opening is very small. But on account of having this ball in place, the woman cannot use injections to wash out the parts—that is the objection. But these poor people can be taught to take it out every night and introduce it again, and use detergent injections. I use these for clinical purposes. Of course for the better class of patients they would not do, but for clinical purposes it is a very good pessary for procidentia. Then, there is the pessary by dry dressings, which Dr. Engelmann suggested and which he explained so well the other night. This will answer very well in many case. This cotton, marine lint or jute answers very well in procidentia also, but it has to be removed and replaced constantly.

Dr. Papin.—I don't know that I can add anything to what Dr. Boisliniere has told us about the pessary, except to corroborate his statement of the terrible smell which accompanies the use of the round globe pessary. I remember a case in which I had to remove a wooden ball pessary with the forceps and the smell was perfectly indescribable. I removed a pessary from an old German woman once, one of Koch's wooden pessaries, oblong in shape and crossed by narrow parallel bars, the whole covered over with wax and then introduced. This woman came to my office very feeble and broken down, with hectic fever and diarrhea, and I don't know what all. She was a pitiable looking object. And she related to me, among other other things, that she had had a pessary introduced four years prior to that in Germany, and begged me to remove it, which I did. The fenestrum was entirely closed up even with the thickness of the pessary with this cheesy sebaceous mucus or whatever it may be called, that was secreted by the vagina. After removing it, I threw it out of the window, and taking a little dilute carbolic acid I washed out the vagina thoroughly. I also gave her some disinfectant wash, about a four or five per cent solution of permanganate of potash solution, to use herself. She came back in the course of a week or so afterwards, and I didn't know the woman; she had improved so much in her appearance.

Dr. Engelmann.—Dr. Papin has touched upon a subject in his remarks which I think might well be elaborated, and I regret exceedingly that Dr. Boisliniere did not give us his experience in the same direction, although he gives us very valuable hints on the *use* of the pessary, his experience in its *abuse* would be timely. The

profession should know more about the dangers resulting from their abuse. The pessary is an instrument which has been commonly and freely used, and a vast deal of mischief has been done. Excellent results have been recorded, but very little has been said about the damage which has been done by the pessary. Unfortunately many who use pessaries do not follow up their cases, and, if injury is done, they know nothing about it. Many know nothing about the results and suppose them good. I have seen injuries so caused which have been more or less serious. The pessary is certainly a very valuable instrument. Like a great many other methods of treatment, it cannot be replaced by any other for a particular purpose in certain cases; but it is by no means good for every case of uterine displacement. The pessary, like the intra-uterine application of iodine, has been misused, abused, used almost universally, and, in this country, it has been used more freely than anywhere else. When I began practice, I heard so much about the good accomplished by pessaries, and saw them used in such enormous quantities, that I was a little astonished at my unsuccessful efforts in my own cases. I drew my own conclusions and soon ceased following what seemed to be the general practice. I take this position; that the pessary is only to be used in a healthy pelvis, or rather in healthy organs which are simply displaced by reason of relaxation of tissues, or in which slight morbid changes have followed the displacement, that the pessary is merely to hold in place an organ which is healthy, or nearly so, and which has lost its proper footing by reason of the weakness of some of its supports. If displacements exist, we should attempt to relieve the disease which causes them; this being relieved and the displacement then still continuing, we complete the cure by the aid of the pessary. Many use the pessary although their experience has been identical with my own. Some attempt to use it because authorities claim such excellent results; others because it has become popular. I have seen a great many very sad cases of suffering and ruined health following the use of pessaries. I refer not to that class of cases of which Dr. Papin speaks, which are perhaps the most striking cases, where the pessary is imbedded and has caused ulceration, but I refer mainly to those in which cellulitis has resulted.

Dr. Papin.—This is the neglect of the practitioner.

Dr. Engelmann.—Those cases in which cellulitis has been caused

or has been aggravated by the pessary are common in my experience. I have one in mind, the wife of a physician from our state, who is in the city now. Two years ago she was here for treatment; was somewhat improved; came back last year to resume treatment, remained in the city all winter; and returned home an invalid. She came here in fair health, walking about. The uterus was displaced, and her physician attempted to use a pessary; tried many; one did not fit, and another was tried, and this also gave her pain, but she was told just to bear it, as the pessary would finally benefit her. She did so, until she could bear a pessary no longer. She returned home, to spend the better part of six months in bed, a sick and suffering woman. I am now treating the chronic cellulitis excited by the pessaries then used. The uterus is displaced but we need not attempt to replace it. Cellulitis had very probably existed in a very light form previous to the use of those pessaries. This is a case similar to those which I see too frequently. An ulceration, a slight semicircular erosion in the posterior portion of the cervix is also very common, yet that means comparatively but little, it is the result of neglect, a superficial excoriation. The pessary has been used so freely, the instruments are sold in such enormous quantities, they are inserted by physicians who do not thoroughly understand the manner of use, that it is not to be wondered at that a great deal of trouble is produced, inflammation about the ligaments and the ovaries which finally become seriously affected. The instrument has been so long used and so much abused that it is high time we heard something of the resulting injuries in place of the reports of the good result accomplished by pessaries.

With regard to anteversion and anteflexion pessaries you will see what they amount to at a glance, if you recall the fact that Dr. Thomas has invented some thirteen or fourteen different anteversion and-flexion pessaries. I was present when he showed the thirteenth anteversion pessary and he himself said that this long list of pessaries proved how little satisfied he was with the instrument. He naturally thought the last was the best, but he was not perfectly satisfied with it. We have hundreds of forms of pessaries from which to choose, and in proper cases one or the other will serve. A vast deal of good can be accomplished by the use of pessaries in proper cases, and I maintain that the pessary must be used only when the pelvic tissues are free from inflammatory conditions,

when the disease which caused the displacement is relieved, or when the uterus is low down in the pelvis by reason of weakness of tissues which support it, and even then I would prefer the tampon, if the circumstances are such as permit a curative treatment. The pessary is by no means always curative. In certain cases we must use this temporary support, but, if possible, a curative treatment should be employed. It is my experience that the injury done by inflammation excited in the surrounding tissues is much more common and much more serious than the cutting into the tissues, such as Dr. Papin has related. This cutting into the tissues followed by hypertrophy or cicatricial contraction, may result in cure of the procidentia, but the inflammation in the cellular tissue and pelvic viscera is the most serious and most common sequence. Not uncommonly a pessary is applied and causes such intense pain that the patient will not bear it. Hence it is at once removed and she is saved, but if allowed to remain in, as it often is, although giving pain, it is causing injury. If the pain becomes too severe, it is at last removed and another one tried, until the mischief is done I often hear of cases in which suffering has been so excessive that the patient was obliged to go to a neighboring physician to have the pessary removed, upon returning home from her visit to the physician a few hours after insertion. From all I can gather physicians in the country are to a great extent giving up the use of the pessary, because in so many cases where the pessary has been used they have seen very few good results but much harm, and because this instrument, which under proper conditions is a great advantage to the patient, has been abused, used in cases in which it should never have been inserted, and because the evil results have been such and so frequent as to deter them from using the instrument. However excellent and however useful, it is not a *sine qua non*, and we can get along very well without it. Most assuredly we had better ostracize it than permit the prevalent abuse to continue.

Dr. Barret.—Dr. Engelmann says we don't hear much about the abuse of the pessary. I think everybody who practises gynecology must hear enough of the abuse of the pessary.

Dr. Engelmann.—That is true. I mean to say that we do not hear it spoken of in the journals. I am very well aware that we all see numbers of cases in which pessaries have been improperly used, but the country practitioner is not so likely to see them, as he cannot follow such patients.

Dr. Barret.—The country practitioner does not know anything about pessaries.

Dr. Engelmann.—But they make use of them.

Dr. Barret. They ought not to. I think it is only when a pessary is improperly used that it will do injury—that is, a pessary which is properly fitted in a proper case does no harm, and any pessary which does not fit, and is not used in a proper case, is not a curative instrument. Now the instrument which rectifies the position of the uterus and helps restore the circulation, that takes off pressure and keeps the uterus in a proper position and retards cellular trouble, is curative. Any instrument which gives pain is pernicious. If a man uses a pessary in a proper case for the use of a pessaries, and has skill to adapt the pessary to the requirements of the case, then it is a curative instrument. If it is a case where a pessaries ought not to be put in, or if, while it is a proper case for the use of a pessary, the man cannot fit it, it ought not to be put in. No pessary ought to be put in which is not made of malleable material, that is a pessary which cannot be suited to the requirements of the case. Every womb requires some modification, some difference in the shape of the pessary. I don't think there is any pessary at all except the Hodge pessary which should be used. I think that the other pessaries amount to nothing. As to anteversion pessary, there is no anteversion pessary at all, no instrument that will do any good in anteversion. I don't think there is any woman who will stand the pressure upon the bladder which the anteversion pessary produces. The only good that I have been able to obtain from a pessary in cases of anteversion is to lift the uterus a little higher, taking off the pressure from the ligaments in that way. Dr. Emmet has called attention to what he calls the health line of the uterus; that is, where there is any cellular inflammation about the uterus, and the woman is placed in an erect position, and the finger is introduced in the vagina, lifting the uterus up to a point in which there is a sensation of relief to the feeling of dragging and pain, that indicates the point at which the uterus ought to be held. In our text books and anatomical plates there is a theoretical exposition of what is recorded as a normal situation of the uterus. This normal situation of course has been determined by the examination of the cadaver after death, and Dr. Emmet contends, and very properly, that there is no normal position of the uterus; that is, that the position of the uterus varies in different

women and perhaps with the same woman at different times. Now any instrument that holds the uterus up too high and puts the tissues on the stretch upwards does as much harm as if no pessary was used, because the irritation is then produced in the opposite way. When proper skill is used for the adaptation of a proper instrument in proper cases, they are an invaluable means of treatment. But there are very few people who know how to adapt a pessary; and I think there is no instrument that is as much abused as the pessary. I think pessaries are very valuable, but that there are very few malpositions which can be corrected with the pessary, none except backward misplacement.

Dr. McPheeters.—I would like to ask Drs. Boisliniere and Papin if, in their experience, the pessary is as universally applied as it was thirty years ago—that is, if they are applied so indiscriminately?

Dr. Boisliniere.—I think not. I think they are applied with more discrimination now. I think the more ignorant gynecologists and midwives do not use pessaries so much as they did some years ago.

Dr. Engelmann.—That is the important point. Midwives and general practitioners make frequent use of pessaries, and this is unfortunately furthered by discussion and articles always touching merely upon their excellence and the resulting benefits. These midwives begin to think that whenever a displacement exists, a pessary should be inserted, and of course they do a great deal more harm than good.

Dr. Papin.—I think the pessary is to the womb what the suspensory bandage is to the testicle, or a splint to a broken leg. I certainly won't put a pessary into a vagina where there is acute vaginitis or acute peritonitis. I won't put a pessary where there are old and strong adhesions. I won't put a pessary into a vagina to relieve a cancerous womb. These are exceptions. In other cases I think a pessary answers an important purpose most admirably. The womb is so placed in the pelvis and so surrounded by its fellow organs that if at all misplaced, the tendency is to passive congestion, if not worse. No womb is thrown backwards that does not fall, more or less, in the concavity of the sacrum. In consequence you find catarrhal affections, an oozing from the superficial glands of the mucous membrane, and the deeper glands continually give off a thick viscid matter; this is continually flowing and draining the

woman's strength. I think that the pessary does a great deal of good. In many cases it relieves the congested condition, it relieves the circulation, establishes the balance between the venous and arterial circulation. The womb does not occupy a fixed position in the pelvis. Its very purpose precludes the idea of its being in a fixed position. It is very loosely attached by broad and round ligaments. It depends not only upon these ligaments, but also upon the surrounding parts for its normal support. If a woman stands on her feet the uterus tips down; does she lie on her back, it tips backward; does she lean forward, it tips towards the bladder; is she pregnant, in the first few weeks, down it goes, because of the increased weight and enlargement of the body, its ligaments are unable to hold it up. The French predicate the proverb upon this; they say: "*Ventre plat, enfant il y a.*" "In the flat belly there is a child." Because the womb has fallen in the pelvis and has absolutely relieved the abdominal wall. The womb is not, then, in a stationary normal place. But for ordinary purposes and for the purpose of making ourselves intelligible, not only to the student, but to practitioners, let us examine where its normal position should be. If you run an imaginary line from the fundus to the neck, and extend that imaginary line upwards, you will strike about an inch below the navel of the woman. If you extend the line in the opposite direction it will about strike the anterior portion of the sphincter ani. The body of the womb rests upon the fundus of the bladder, more or less, in a normal condition, and the rectum comes down behind it. It is supported on either side by broad ligaments and the Fallopian tubes and attachments of the ovaries; but when once displacement occurs, unless the surrounding tissues are acutely inflamed, or from other cause, the use of the pessary is indicated. There is no one remedy that in my hand has produced so much real good as the Hodge pessary, modified often to suit the case. But as a rule I find that by simply selecting the different sorts that are commercially to be obtained, I have sufficiently accurate measurement of the pelvis of the woman to make her feel very comfortable. Where you have twenty retroversions, aye, fifty, you may not have a single case of pelvic cellulitis appreciable, even if you are conscious that there may have been former adhesions of the character described as the result of acute cellulitis, acute pelvic peritonitis and this inflammatory action has disappeared. The tendency here is not toward a puckering of the mucous membrane or skin,

but toward relaxation, and with a little assistance you can very often overcome the adherent condition of the uterus that otherwise would remain probably in the position in which the inflammatory condition had left it. Dr. Boisliniere alluded to that fact in making use of the rectal instrument. He does not hesitate to break up these adhesions, because there is no inflammation there, and we all know that some connective tissue is devoid both of bloodvessels and nerves of its own; it is a mere space through which they go to other organs, and, unless the inflammation starts from the peritoneal covering, or from the tissue proper of the womb, or of the bladder or rectum, or passes through and through the tissues, thus involving the connective tissue and the cellular tissue proper, we know very well there is no such inflammation there; the tissue has not sufficient vitality of its own to invoke an acute inflammation. It is only when the organs surrounding it become inflamed that it shows these results. No, sir, I would not be able to practice gynecology if I were deprived of the use of the pessary, and I consider myself as clever a surgeon as he who knows how to set a limb in a splint, or a physician who knows how to sustain and bandage a testicle on account of the elongated scrotal tissue.

Dr. Boisliniere.—I wish to reiterate my position in regard to the use of the pessary in acute cellulitis and vaginitis. These troubles should be relieved first. But I find the presence of old adhesions of the utero-sacral ligaments no obstacle to the use of the pessary, even if it is necessary to break up the adhesions.

Dr. Barrett.—You don't think the inflamed posterior ligaments contra-indicate its use?

Dr. Boisliniere.—Yes. I would subdue the inflammatory process first, and when pain has ceased and the case has become chronic, I would break the adhesion, reposit the uterus, and place in a proper pessary.

Dr. Barrett.—There is a very common condition and one which is frequently overlooked. It is one which Dr. Boisliniere referred to just now as the inflammation of the posterior ligaments and utero-sacral ligaments in which there is laceration of the cervix, and the cervix becomes enlarged and distended and fills up the upper portion of the vagina. The upper portion of the cervix gets too big for the vagina, and consequently the uterus is pushed backwards; that is one explanation of the backward displacement and laceration of the cervix. Another explanation is drawn from the fact

that laceration of the cervix is almost always accompanied with laceration of the perineum. Why it is I don't know; but it does seem that in the large proportion of cases, probably nine of ten cases in which the neck is lacerated I have found the perineum also lacerated. This laceration of the perineum takes away the vaginal support which is the main means of sustaining the uterus. When the uterus is displaced backwards, inflammation of the posterior ligaments is very common, and they contract and pull the neck back and produce retro-flexion. Those ligaments are tender, and since the pessary necessarily presses on them, the use of the pessary is inapplicable in those cases, and they form a large proportion of the cases in which it is impossible to introduce pessaries.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 23, 1886, DR. BREMER in the Chair.

TEREBENE

Dr. Mulhall reported his experience with terebene. Dr. William Murrell of London, one of the great therapeutists of the age, was the first one to call attention to its virtues in what is known as winter cough, chronic bronchial catarrh. Dr. Mulhall has tried it in about thirty cases including several cases of phthisis. Dr. Murrell claims that it is one of the best medicines, perhaps the best, he has ever used to relieve chronic engorgement of the bronchial mucous membrane—loosening the mucus and making it come quite freely and easily. His own experience has been corroborative of the results reported by Dr. Murrell. In several cases it had a most astonishing result so that in the course of four or five days the cough of a chronic bronchial catarrh was entirely relieved. One old man said that he had bought fifteen or twenty bottles of medicine and none of them had had any effect in relieving his old winter cough. Dr Mulhall ordered terebene, and he came back in the course of five days and said that it had done him more good than all the cough remedies he had used, put together. It rendered his cough perfectly loose and easy, and there was no longer any trouble with it. In several cases of phthisis it had the effect of making

the secretion quite easy of expectoration, and seemed to help their condition. Dr. Murrell also claims that it is excellent for the flatulence of dyspepsia which so often complicates cases of bronchial catarrh. Another advantage which Dr. Murrell claims, is that it is administered very easily, and this certainly is true. Half an ounce can be carried in the vest pocket; and may be taken, five drops at a dose, three times a day on loaf sugar. Dr. Mulhall gives ten drops at a dose. Patients do not make any objection to taking it; it is quite agreeable to take.

Dr. Boisliniere, Jr. remarked that Professor Germain-Sèe advised giving turpine in solution containing a little alcohol in similar cases as those for which terebene has been found so useful.

Dr. Moore thought the remedy spoken of by Dr. Mulhall had a wide field. He had a chronic case of asthma which was losing its spasmodic character and assuming that of chronic bronchial catarrh with a most viscid expectoration. He asked if Dr. Mulhall had tried this remedy in such a case.

Dr. Mulhall had not treated with terebene, any cases complicated with asthma, because he regarded the spasmodic element as due to disturbance of the nervous system and did not suppose terebene would affect that, but the catarrhal element, it would. In cases of bronchial catarrh in which there were asthmatic seizures, he had used it with a very good effect. The remedy relieves the engorgement of the bronchial mucous membrane and thereby renders the patient less liable to asthmatic seizures.

Dr. Frank Glasgow remarked on the difficulty of determining whether such a case as Dr. Bremer's is one of hysteria or not. There are cases which seem to lie on the border between hysteria and organic disease. A girl came down from north Missouri about a year and a half ago to the Sisters' Hospital to be treated for blindness. She was about 18 years of age, healthy in every respect apparently, and complained of nothing except this blindness; she couldn't tell the difference between daylight and darkness and it would come on very suddenly. The first time he looked at her he was suspicious as to her blindness and told her father so. He said he had been inclined to think the same. He had observed her closely and thought she could see better than a person who was totally blind. A well known oculist here examined her with an ophthalmoscope and couldn't make out any thing wrong; but he said she was totally blind; there was no perception of light. Dr. Glas-

gow couldn't agree with him. In spite of all that, however, the pupils certainly didn't contract when light was thrown on the retina by the lens. Sometimes the pupils were dilated and sometimes they were not. There was some little uterine sensitiveness and some inflamation of the cervix, some erosion and a slight leucorrhea,—cervical catarrh, but that was a very slight trouble and he couldn't believe that it was the cause of the blindness, and it was not treated. After she had been in the hospital for some time, she acquired a fever and her symptoms took a typhoid form, and at one time it looked as if she was going down hill very rapidly. This didn't last more than ten days; the fever was continuous and various. During the continuance of the fever she got an idea that she couldn't talk, and she curled her tongue up in the roof of her mouth and wouldn't utter a word. She was getting better from the fever, and, after a little, concluded that she would talk. She went on this way and wouldn't admit that she could see except one night when she got tired and wanted to go home and pretended she was going to throw herself over the railing on the porch. They were very much frightened about it out at the hospital, and although told that there was no danger of her doing so, they insisted on sending her home. Two weeks afterward she recovered her sight on hearing a band of music on the street.

Dr. Hermann said certainly hysterical cases have been observed which presented the same blindness. Atrophy of the muscles does not usually occur in hysterical patients; they generally preserve the rotundity of their limbs, and, although the hysteria may continue for years, there is no real atrophy of the muscles, no reactive degenerative effect. That is one of the symptoms by which we differentiate a case of hysteria from an organic atrophy of the muscles. We certainly have real atrophy of the muscles and paralysis developing after diseases of the brain, in those cases we have weakness developing in the lower extremities with increased tonicity of the muscles. He asked the doctor whether there was such a state of things in Dr. Bremer's case, any spastic conditions?

Dr. Bremer said there was no spastic condition, no cerebral disease with the exception of the delusions.

Stated Meeting, April 6, 1886.

FOREIGN BODIES IN UTERUS.—CRIMINAL ABORTION.

Dr. Fry said that he had been called to see a woman who had aborted. Several days after the accident she told him that she felt something pinching her. He introduced his finger into the vagina and removed a piece of wire about an inch long, which was wedged between the neck of the womb and the wall of the vagina so that it was not easily removed. Passing the finger around the neck of the womb and through the vagina, he detected nothing, but the next day she said that there was something else there. In the upper part of the vagina he found another piece of wire and removed it. After that he made a very thorough examination and there was no more wire in the vagina; but the second or third morning afterwards she said there was something else sticking her, and on examination he found the largest piece of all. Two of these pieces of wire had cotton firmly fastened into the hooked part and wrapped around it as though for making an application inside the womb, and they also showed evidences that a portion of the wire had been cut off. The first specimen looked as if it might have been twisted off. She finally admitted that she had visited an abortionist at four different times and that each time he manipulated a good deal, the first time particularly, using a bivalve speculum. She was conscious that he used scissors and cut something, she had no idea what. These specimens show the manner in which these people proceed. She stated that at the time of the abortion there was a larger piece of wire than any of those which came away. She was probably about two months pregnant.

Dr. Todd asked if Dr. Fry thought from what he had seen or heard that abortion is getting to be more common; if more of these fellows are in the market, so to speak, than they used to be?

Dr. Fry said he was certain of it, that within a week he had attended two woman who had had abortion committed on them. One significant fact would show the prevalence of the practice and the number of people engaged in it. He had been told that the prevalent fee for committing an abortion is $5. There must be considerable competition to reduce the fee to that. He was satisfied that there are a number of men, and knew the names of some of them, who are doing this thing for $5. This woman told him, for instance, that she had been to see this man four times (and the pres-

ence of so many pieces of wire there evidenced that she had been to see him a number of times) and that he only charged her $5 altogether.

Dr. Leete said it seemed to him that where the chain of evidence was complete, it would have a good effect on public morals to draw the attention of the grand jury to the case and make a public example of one of these harpies. He was well satisfied from his own personal observation, that in quite a percentage of those applying to have an abortion produced, when the enormity of the crime involved is properly laid before them, they will be deterred from taking a further step. Within the first four years of his living in St. Louis, he was applied to about twelve times, and the majority of the women from their dress, had an abundance of means at their command, so they were not trying to kill their unborn children by the pressure of poverty. Sometimes they would come with very curious pleas, giving the names of old physicians of the highest respectability as quite ready to do this sort of work, and the only reason they assigned for having applied to him [Dr. Leete] was that the other physician was out of the city. These names of course were mentioned to try and induce him to change his determination. Only one seemed to be in such a condition of poverty that it was a reason why she desired not to have any more offspring. A majority of these women confessed that the reason for wishing to have the abortion produced, was to save them the worry and care of children. If a case could be clearly made out against any of these harpies who stand ready to do this sort of work for five dollars a head, he thought that a wholesome lesson would be taught. would not be remembered for a very great while, butit would have a good effect for the time being at least.

Dr. Fry noted the fact that we so often hear, that this sort of practice is imputed to men who stand high in the profession. It seemed to him that facts contradict such charges. He was convinced that no one who engages in this sort of business can keep it quiet for a very long time: it will come to light and especially will it become known to the members of the profession, and certainly to the women. It is surprising to know how rapidly information of this kind is diffused among the women. The fact that so many people do this business proves that it is not being done by the regular respectable portion of the profession.

Dr. Leete agreed with Dr. Fry in this and believed these state-

ments referred to as made by these women were untrue and were made for the purpose of inducing him to change his determination and produce the abortion.

Dr. Ford read a paper on Catheter Fever. (Vid. p. 481).

Dr. Todd said it had occurred to him while the doctor was describing the location of the point of origin of catheter fever that that was in the neighborhood of the ejaculatory ducts, and knowing how very sensitive the genital apparatus is to pressure, that the irritability of those localities again might be intensified possibly by some disturbance of the genital apparatus. He asked if that could possibly cut any figure in any of these cases, whether, for instance, in examples where the urethra was perfectly healthy and yet these serious results took place, this hyperesthetic condition might not be greatly intensified by some condition of the ejaculatory ducts and testicles.

Dr. Ford said that was the view he took of it. It was very questionable whether until the last ten or twenty years, since Sir Henry Thompson began to teach the delicacy and sensitiveness of the urethra this was very much appreciated. Formerly very little care was used in the introduction of the catheter. If it did not pass easily it was a common practice to force it in; and but little attention was paid to handling it gently. The sensitiveness of the parts was not appreciated at all, consequently there were irritations and disturbances of the deep urethra which the patient hardly felt, but which nevertheless existed. He himself had frequently found in passing the catheter irritations of the deep urethra which nobody would have suspected. A gentleman came from the country lately suffering with incipient melancholia. The urinary organs were healthy, but on passing into the bladder a perfectly smooth steel sound grooved on its side such as is used in the operation of lithotomy, and removing it, he found the groove filled with blood. He had introduced the sound so carefully that it was not possible to have produced any injury, so that he was satisfied there was an abnormal condititon of things there which was not suspected. By adopting appropriate treatment and sending him home with directions how to continue the treatment, he is very much improved. In the majority of these cases of melancholia, probably some prostatic inflammation is the cause of the trouble.

TRANSLATION.

FUNGOID MYCOSIS.

BY PAUL LE GENDRE.

[TRANSLATED BY DR. JOSEPH GRINDON, ST. LOUIS.]

We have here to do with an affection which, although comparatively rare, should be known to every physician, whether he be a dermatologist or no, who is interested in general pathology and nosology. It has, in fact, stimulated the curiosity of observers of the first rank whose opinions have met and clashed in this narrow corner of dermatology as in an inclosed arena, so that the history of the investigation of fungoid mycosis becomes one of the episodes of the great struggle between doctrines in pathogeny which characterizes our epoch.

Although the study of fungoid mycosis was not taken up until within the last fifty years, it has given rise to a large number of monographs and clinical investigations, and it would be a difficult matter for us to obtain a clear insight into the subject without the light furnished us by several excellent guides whom we shall here refer to.

In 1881, MM. Ernest Besnier and Doyon presented what was then a very complete résumé of the subject in one of the notes which they added to their translation of Kaposi's book, which notes are often more valuable, and in any case more useful to the practitioner than the text.[1]

But a new element having appeared in the etiological problem within the last few years, MM. Vidal and Brocq published a review of the subject in 1884.[2]

Quite recently, again, M. H. Hallopeau, a physician of the Hôpital Saint-Louis, has given us a general review in which criticism has not, as too often happens, been buried under erudition, and in

1. *Traité des maladies de la peau*, t. II., p. 143.
2. *France médicale*. 1884.

which the actual state of the question is presented in a very precise manner.[1]

I.

The word mycosis was coined by Alibert; it was applied as a generic title to a group of rather dissimilar cutaneous affections having as a common characteristic their general resemblance to fungi. About 1833 he described more particularly, under the name of Fungoid Mycosis, an affection of the skin, which then underwent another period of neglect, until Bazin, in 1862, and Guérard, his pupil, in 1863, made it the subject of more complete descriptions.

But the questions as to the nature of fungoid mycosis could only be handled by histologists. It is as a result of M. Ranvier's splendid investigation that the French school considers fungoid mycosis until now as a cutaneous lymphadenoma, while in Germany, after being long considered as a sarcoma, it has quite recently been declared of parasitic origin.

The solution of the typical form of fungoid mycosis may be divided into two periods.

During the first there are no tumors, and the skin is attacked only by some very superficial and multiform lesions. This period comprises a hyperemic and an exudative stage. There first appear, more or less deeply colored, isolated or confluent, flat or barely raised *erythematous spots* which are soon covered with furfuraceous or lamellated scales. These are sometimes accompanied with a sense of itching or burning, when they may be complicated by nail-lesions. Sometimes the eruption presents the appearance of a slightly oozing *eczema* or of the wheals of *urticaria*. These various lesions following each other in crops may alternate with *papular* or *vesicular lesions*. To the macules of the first stages there succeeds, after some time a thickening of the skin in the shape of *lichenoid patches*, having a rugous and mamellated surface, which were at one time classed with lichen hypertrophicus. The development of these patches may suffer remissions, may even undergo retrocessions. They may decrease in size, disappear at the sites primarily affected and reappear elsewhere. The general health is usually but little affected at this time. Weakness, anemia and digestive disturbances are the only symptoms to be made out during the first period.

1. *Revue des sciences médicales de Hayem*, Oct. 1885.

The second period may be considered as commenced when there appear excrescences, the site, shape, size and appearance of which are subject to very considerable variations, but which, however, make it possible to recognize this affection which in the two first stages one could hardly have suspected the existence of. These *mycosic tumors* develop either at the site of lesions of the foregoing stage, or on previously unaffected portions of skin. They may be seen on all parts of the surface, on the scalp, face, trunk and extremities, mammæ, hands and fingers. On hairy regions they eventuate an early loss of the pilous appendages. They are of firm consistence and of a smooth surface; their color varies from reddish to livid. The more voluminous, possessing this particular hue, sometimes have the appearace of ripe tomatoes. They are firmly connected to the skin and move with it. They are neither painful nor tender, they are even at times analgesic.

The progress of mycosic tumors is a capricious one. Some, after having grown for several months, come to a stop, undergo involution, and finally sink down and disappear; others ulcerate, now at the centre, now about the periphery. These ulcerations are often superficial losses of substance which secrete but slightly. Sometimes a tumor, after affording fluctuation, will present true abscesses.

The advent of the period of ulceration is accompanied by an alteration of the patient's general condition which may become so marked as to constitute a cachexia, or, on the other hand may suffer remissions or prolonged interruptions.

MM. Vidal and Brocq have admitted the existence of a second variety of fungoid mycosis in which the changeful and capricious features of the type just described, which are to be found as well is the period of congestive erythemas and lichen-like patches as in that of the mycosic tumors, do not exist. In this second variety there is no eczematiform or lichenoid stage, but well-defined *tumors*, few in number, are developed *from the first*. For these reasons certain dermatologists refuse to class them with fungoid mycosis, failing to see how they are to be differentiated from sarcoma, either clinically or microscopically.

The histological study of fungoid mycosis which dates from the researches made by M. Ranvier, and published in 1868, by Gillot, a pupil of Hillairet, has kindled a conflict between diverse opinions as to the nature of this singular malady. M. Ranvier had unhesi-

tatingly relegated fungoid mycosis to the class of *lymphoid* tumors. He found them to possess, in fact, the following characteristics. Very numerous white corpuscles, either isolated or agglomerated in such a manner as to separate the connective-tissue fasciculi of the derma were circumscribed by a lymphatic net-work. The adenoid mycosic mass is furrowed by capillary vessels. Analogous products have been seen in the subcutaneous ganglia, in the brain, the lungs, the intestinal follicles and ganglia of the thorax and abdomen. Ranvier's opinion, since confirmed by the investigations of Debove, Landouzy, Malassez, finds its fullest expression in an article by Demange (*Annales de Dermatologie*, 1874), in which fungoid mycosis is distinctly set down as a lymphadenitis. According to these views, mycosis would then be a *dermato-lymph-adenoma* (as Besnier and Doyon have it); it would be the lymphoma or lymphadenoma of Virchow, producing in the skin an affection identical with that of the adenitis of Trousseau (Vidal, London Congress), and Galliard claims for cutaneous lymphadenitis the right to a place in the nosology.

II.

In Germany, on the other hand, an opposite movement has taken place.

Koebner classed fungoid mycosis with fungoid papillomatous tumors. Geber (1878) designated it as inflammatory fungoid neoplasm of the skin, and Kaposi makes it a *sarcoma of the skin.*

The German observers did not make out an adenoid structure in all the mycosis tumors examined. Besides, in a case of M. Vidal's the microscopical examination, made by H. Liredey, revealed sarcomatous elements co-existing with those of lymphoid tissue. There were even presented together several varieties of sarcoma, embryonal, fasciculated, myo-sarcoma, the divers kinds of reticulated tissue to be seen in adenoid tumors.

One can easily understand how, having these and similar facts in view, Geber and Koebner considered the adenoid tissue simply a phase in the evolution of the neoplasm.

Besides, those who oppose the theory of Ranvier and Gillot do not admit that the presence of a reticulated stroma in a cutaneous tumor is sufficient to characterize it as a lymphadenitis. The alterations of structure undergone by a tissue in a given disease are not of themselves sufficient to determine the nature of that disease.

If we were always to rely exclusively on the former to indicate the latter, we should confound syphilis, tuberculosis and glanders, for instance, since from the histological point of view, and setting aside the bacillar element, all three of these diseases may occasion nodular formations; we must also bear in mind the cause and localization of the symptoms.

Further than this, the absence of leukæmia, of generalized glandular hypertrophy and of hypertrophy of the spleen in the persons of those suffering from this complaint, as well as the retrogression and even possible disappearance of mycosic tumors, have been cited as arguments opposed to the lymphadenitic nature of fungoid mycosis; the last named phenomenon presenting a striking contrast to the fatally progressive march of general glandular lymphadenitis.

III.

After the view that mycosis is a lymphadenitis and after that which connects it with sarcoma, a new doctrine, one which threatens to absorb all pathogeny, the *parasitical theory*, appeared on the scene. Virchow classes fungoid neoplasms among granulomas. And Auspitz, in Ziemssen's treatise, describes the tumors of mycosis under the title of fungoid granulomata, side by side with tuberculosis, lepra, syphilis and rhinoscleroma.

Is was natural that such an association of ideas should give rise to the conception of the infectious nature of mycosis, and, in fact, the recent observations of Auspitz and Rindfleisch, to which we are introduced by H. Hallopeau, seem to establish that the lesions of mycosis possess a distinct characteristic of definite value in the presence of a micrococcus.

The patient who furnished the subject of Auspitz' clinical investigations, after having had a chronic eczema, noticed the development fungous tumors having much the appearance of mushrooms or strawberries. These tumors were examined under the microscope by Hochsinger, who stated that "between the broad connective tissue fasciculi was to be another similar tissue, but of more recent formation, consisting of fibrillæ containing large numbers of round, fusiform or epithelioid cells." Then after the use of the different methods of staining, which serve in detecting micro-organisms, there appeared "innumerable cocci, packed one against the other, and so distinct of outline that they appeared like a bed of mush-

rooms." These cocci, measuring from .9 to .15 μ are grouped into diplococci or streptococci of from three to five individuals.

"The absence of enveloping capsule or zooglea, the rounded outlines and uniform size of these cocci, serve to differentiate them from those found in other maladies. The micrococci penetrate into the round and epithlial cells as well as into hair-follicles and even into the hairs themselves. They are also met with in the superficial scales of those cases which apparently show nothing more than eczema—an important fact, proving as it does, that the comparatively slight initial lesions already possess the essential elements of the disease." Schiff succeeded in cultivating the micrococcus seen by Hochsingser, and having inoculated a kitten with some of the culture-product, the same elements were found in the local lesion thus produced. The demonstration is thus complete.

The description given by Rindfleisch of a streptococcus which he also found in fungoid mycosis, differs lrom that of Auspitz inasmuch as the latter observed the micrococci more particularly in the interstices of the tissue, while Rindfleisch only saw them in blood-vessels, where colonies of them form obliterating masses, which serve as foci for all future lesions. These micrococci are also found in the capillaries of the liver and lungs. In the skin "by obstructing the circulation, they occasion an accumulation of white corpuscles, infiltrating into the superficial portion of the derma, where the vascular loops to the papillæ are given off. Sometimes the infiltration of white corpuscles extends even into the lower layers of the cutis and sub-cutaneous connective tissue." From this process result neoplasmata of nodular conformation the occasional retrogression of which may be explained "by the fact that the colonies of streptococci have abandoned those vascular areas about which were collected the white corpuscles."

"*To sum up the matter*," says M. Hallopeau, in terminating his very lucid exposition of Auspitz' and Rindfleisch's very interesting researches," *we have here a specific inflammation comparable to that of tuberculosis, of lepra or of syphilis.* If the neoplasmata present some analogy to sarcomata, it is merely because their anatomical substratum is the same, and tissue elements react and undergo modifications only after certain methods. The essential difference between these affections is to be found in their *etiology*. It would seem to be already established *that the typical form of mycosis owe as its particular cause the presence of micrococci in the integ-*

ument. In view of the high standing of the two authors who have discovered them, of the identity of characteristics which they attribute to them, and of the accumulation of these organs in the parts most profoundly affected, there seems hardly to remain room for doubt as to this point." M. Hallopeau hopes that, thanks to the existence of these microbes, we shall soon know whether fungoid tumors appearing as such from the first, without a preceding eczematous or lichenoid phase, should be classed with mycosis, and whether there really exists any connection between mycosis and leukemia.

The critic who is not sufficiently versed in dermatology to enter upon a discussion as to the nature and etiology of fungoid mycosis, should limit his ambition to the putting on record of the work of those eminent specialists, who, in France and Germany, have constituted themselves the champions of the great questions of general pathology, and who do combat on the field of dermatology, and should be to the practitioner an echo of their instructive struggle.

ACCOUCHEMENT OF A TURKISH PRINCESS.—DR. J. A. S. GRANT was called upon to attend a Turkish Princess in confinement, she having heard that he would administer chloroform. Everything connected with the delivery passed off successfully and it was considered a most auspicious introduction of chloroform, and medical men into the harems for confinements.—*Alb. Med. Annals*, May, 1886.

WILLARD INSANE ASYLUM, the central asylum for chronic insane cases in New York State, and which has now more than eighteen hundred insane patients has reduced the per capita charge to the counties to $200 per week, thus supplying the best of care at a minimum cost to the tax-payer. The cottage plan of house construction is in vogue at Willard's.

GAMBETTA'S BRAIN weighed only 38.4 ounces. The third frontal convolution was developed to a high degree and the fissures were numerous and complicated.

COMMUNICATIONS.

PRAIRIE ITCH.

PAWNEE CITY, NEB.

EDITOR COURIER:—In your last issue is a letter from Dr. Hardaway in regard to that prevailing itching—prairie itch, eczema or whatever it may be.

Having had quite an extensive experience with this disease as it appears in this vicinity, and having observed quite carefully some of its characteristic features, I desire to give you the benefit of that experience and observation. I am quite satisfied upon several points relative to the disease in question: 1st. That it is contagious. 2nd. That it is due to a parasite. 3rd. That the disease as it appears here, and as it has appeared here during the last four or five years, is not scabies.

This part of the country, South Eastern Nebraska, has been tormented with this disease for three or four years past to an extent annoying to the people and perplexing to the physician. No portion of the community has been entirely exempt. Those in high estate have not immunity from the disease. The rich and poor meet together on common ground and scratch.

In over fifty cases have I been able to satisfy myself that the disease is contagious. A few cases will serve to show this connecting link. A young lady aged 18 years, in well to do circumstances and good habits, no history of skin disease, was teaching school away from home, coming home on Friday evening and remaining until Monday. During the stay at home would have for a bed-fellow a little girl two and a half years old. The young lady began to complain of itching with slight manifestations of "breaking out" on arms and portions of the body, came to me for relief. I found small points sometimes vesicular disseminated on arms and neck, none on the hands. I prescribed hydrg. oxid. rub., zinc. oxid. aa. grs. xxx to ounce of vaseline with gtts. 15 of carbolic acid. Also baths of soda water used as hot as could be borne prior to

application of the ointment. Shortly after this the little girl before mentioned who had occupied the same bed with the young lady was brought to my office with a typical eczema on arms, hands and about the shoulders, worse where the clothing had rubbed. The same treatment was given except the strength of the carbolic acid and the mercurial was reduced. The baby eight months old, sister to the last was the next victim: then the parents followed in such regular military order, that the only conclusion possible was that the disease was contracted by the teacher at school, communicated to the little girl with whom she slept, then to the babe and by it to the parents.

This is only a sample of a tracing followed in many cases, which experience has been repeated over and over again in the last few years.

As to the second point, that the disease is due to a parasite or germ, I conclude that this is the case from the fact that it seems to be transmitted by actual contact (contagious.) And several times have I been able to verify this by the disease beginning on those parts which were exposed. I do not have a microscope, but it seems to me that some one possessed of the opportunity for microscopic examination, might do us a lasting benefit by using the instrument on some of this breed, thereby aiding the profession in corralling them.

On the third point I need only make the statement that none of my cases have been scabies. I do not see how it is possible for a careful physician to mistake scabies. This disease has nothing in common with scabies except the itching.

As to the treatment, the preparations of mercury, the red and white precipitate with oxide of zinc and carbolic acid are the remedies which give the best results in my hands. I have also used mercury bichloride in solution, 5 grs. to the ounce, but the remedies in the form of ointments are better.

Most of these persons give sulphur ointment a thorough trial before applying to a physician, but in no case have I known any good to follow the use of sulphur. I have frequently in protracted cases given arsenic internally, but more to satisfy the patient who wanted to take something for the blood, than for any real good result on the disease. I think all these case can be cured by topical applications systematically and thoroughly used.

A remarkable feature of the disease as it has appeared here, is

its resemblance to eczema. I think in every case that I was permitted to follow up, during the course of the disease, on portions of the body it has exhibited the characteristic physical appearances of vesicular, papular or squamous eczema. After irritation of the skin by scratching a form of dermatitis of course results, but many cases have the appearance of eczema from the beginning. I do not pretend to say what the disease is, but I am firmly convinced of the truth of the points given you above. Yours,

A. B. ANDERSON, M. D.

THE OFFICERS OF THE AM. MED. ASSOC. FOR 1887 are the following: President, E. H. Gregory, of St. Louis Mo.; Vice-Presidents, E. H. Miller, Minn., W. B. Welch, Ark., W. H. Pancoast, Pa., W. C. Wile, Conn.; Perm. Sec'y, W. B. Atkinson, Pa.; Assist. Sec'y, J. N. Hyde, Ill., Treasurer, R. J. Dunglison, Pa.; Librarian, C. H. A. Kleinschmidt, Washington, D. C.

A. P. H. A.—The meeting of the American Public Health Association to be held in October next, will be at Toronto, Canada. The Committee of Arrangements is already making good progress in securing facilities for a large and profitable meeting at that time. The work of this Association has been exceedingly valuable, and is of interest to every physician.

AMERICAN MEDICAL EDITORS' ASSOCIATION.—The officers for the ensuing year are Drs. J. V. Shoemaker, Philadelphia, President; Dudley S. Reynolds, Louisville, Vice-President; Wm. Porter, St. Louis, Secretary. The Association was handsomely entertained at the St. Louis Club House by the Medical Press and Library Association.

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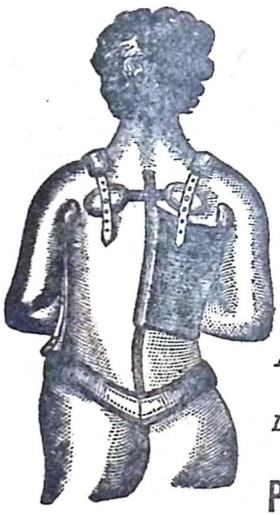

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DOSE.—One or two teaspoonfuls three or more times a day, as directed by the Physician.

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PREPARED FROM THE ALETRIS FARINOSA OR TRUE UNICORN.

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IT RESTORES NORMAL ACTION TO THE UTERUS, AND IMPARTS VIGOR TO THE ENTIRE UTERINE SYSTEM.

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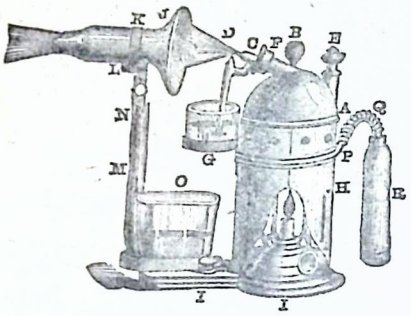

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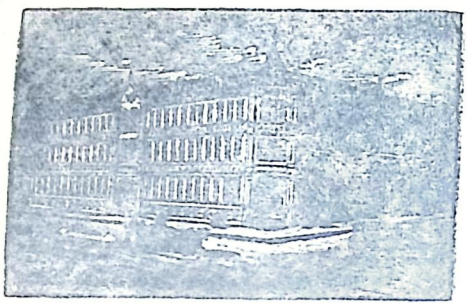

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We use them in Liuuid Food:

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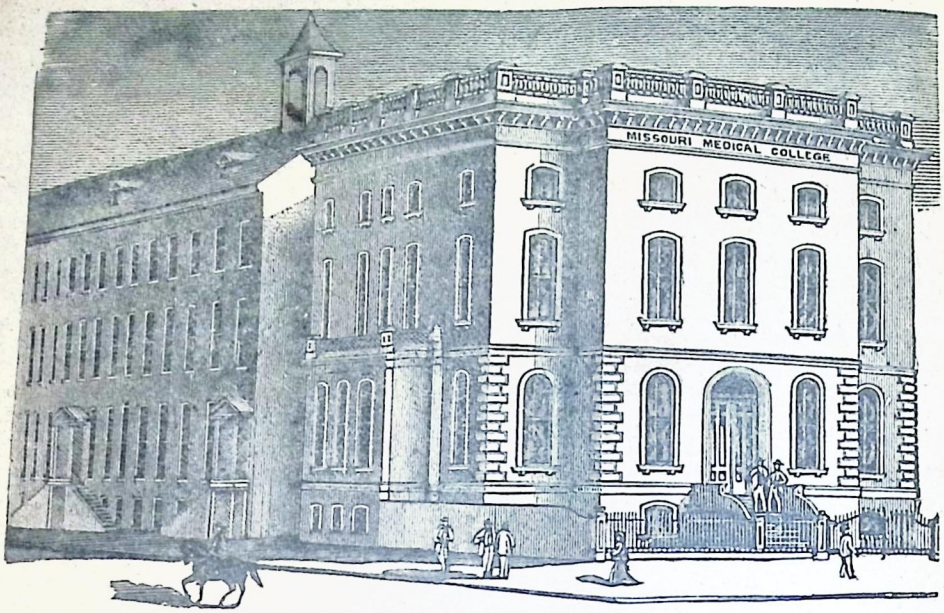

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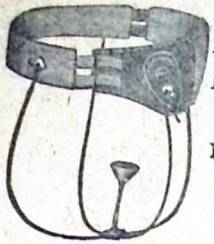

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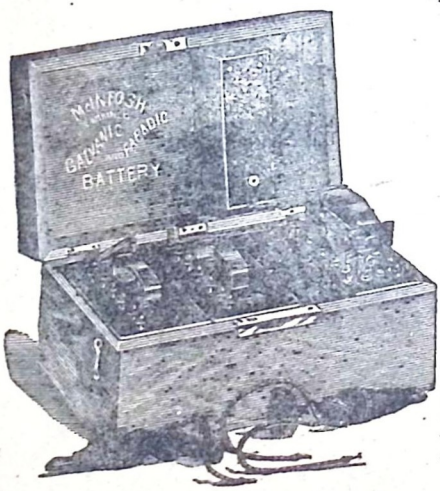

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BALANITIS.
GONORRHŒAL PHIMOSIS.
GONORRHŒAL PARAPHIMOSIS.
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GONORRHŒAL OPHTHALMIA.
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